

A comparative analysis of the effect of self-perceived risk of HIV/AIDS  
on the adoption of safer sex practices as a preventive measure for  
HIV/AIDS among adolescents: Uganda and South Africa

By

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A dissertation submitted as partial fulfilment towards the degree of  
masters in Sociology: Sociological Analysis and Social Research.  
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## DECLARATION

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I declare that this work, 'a comparative analysis of the effect of self-perceived risk of HIV/AIDS on the adoption of safer sex practices as a preventive measure for HIV/AIDS among adolescents: Uganda and South Africa', is my own work and has not been submitted at any institution for similar reasons.



.....  
Millicent Atujuna

Date 3/4/2003



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**ACCEPTANCE**

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This work is submitted with the approval of the supervisor, Prof. Gerhard Maré, of the Department of Sociology at the University of Natal, Durban, South Africa.

.....  
Prof. Gerhard Maré

Date .....

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## ACKNOWLEDGEMENTS

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The completion of this dissertation has been a wonderful and enriching experience that I should not any moment forget. However, this would not have been possible without the support, encouragement and guidance that I received from the start to the end. My initial interest in the general area of health and behaviour, and of recent sexual health and behaviour was stimulated by a number of people that have inspired me over years; Atuyambe Lynn, at Makerere University, and Professor Andreas O'Shea at the University of Durban-Westville, by whom I continue to be inspired. I owe a great deal of thanks to the Ministry of Health, Uganda; Uganda Bureau of Statistics; Department of Health, South Africa; Medical Research Council; and Macro International for allowing use of the Demographic Health and Survey data sets employed in this study.

I deeply acknowledge the work done by my final supervisor Prof. Gerhard Maré, who made so much effort, and tirelessly went through my work and gave such important comments. Professor Maré further worked tirelessly to make sure that this work was finished on time despite the short space of time since his supervision of this work started and therefore, I owe him a great deal of thanks.

I give my very special thanks to my partner Andreas O'Shea - there are no exact words to express my gratitude. I thank you for keeping me safe, keeping me in good health and your endless support in all ways possible. Without you, I would have managed great difficulty. Thank you for everything.

On my first arrival at the University of Natal in 1998, I met Dr. Monique Marks with whom I discussed prospects of me pursuing my postgraduate studies in this institution and she was able to facilitate the application process. Dr. Marks has since then continued to inspire my work - special thanks therefore go to you Dr. Marks. The conception and initial ideas for this dissertation was through guidance and encouragement of Prof. Charles Crothers to whom I am deeply indebted. In addition, this dissertation was written in atmosphere of encouragement provided in particular by Prof. Maré, Monique Marks, Vanessa Fennerbarbour, Niel Naidoo, Geoff Waters, Simon Mapadimeng, David Brown, Kibbie Naidoo and all the other Sociology staff. I am grateful for your persistence and encouragement.

My thanks go to the *Ursuline* sisters at Val Dieu for keeping me in good health and spirit and allowing me to use their facilities. Special thanks to *Sour* Marie Renate. I specifically thank you for loving and taking care of me as your own daughter.

I thank my brothers and sisters, my parents, Dr. Ann Miyingo, Goreth Tumusiime for their prayers and encouragement. Without you I would not have managed. The family of Dr. Mubanginzi deserves a special mention. Thank you for being there and thank you for your support.

To all my friends, thank your for the encouragement and emotional support. Special thanks to Nompumelelo Nzimande for your critical comments but always of value, your endless guidance especially during the analysis time and also being there at those moments when the graphs were at their lowest. I am deeply indebted to Prof. Akim Mturi of the School of Development Studies and Dr. Sooryamoorthy for their final touch on analysis and their valuable comments. Above all, I thank God for keeping me in good health. Webare Munonga

*To Andreas, my partner*

---

The journey that led to this work may never have begun without you.

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## LIST OF ACRONYMS

AIDS.....	Acquired Immuno-Deficiency Syndrome
CBOS .....	Community Based Organisations
CREHP .....	CARE Community Reproductive Health Project
CIHL.....	Canadian Institute for Health Information
DFID.....	Department for International Development
DHS.....	Demographic Health and Survey data
DISH.....	Delivery of Improved Services for Health
DoH .....	Department of Health
EAs.....	Enumerator Areas
GDP .....	Gross Domestic Product
HIV.....	Human Immuno-deficiency Virus
MLE .....	Maximum Likelihood Estimation
MRC .....	Medical Research Council
NADIC .....	National AIDS Documentation Centre
NSF .....	National Strategy Framework for HIV/AIDS activities in Uganda
NGO .....	Non-Governmental Organisation
SADHS .....	South African Demographic Health Survey data
STIs .....	Sexually Transmitted Infections
UACP .....	Uganda AIDS Control Programme
UAC .....	Uganda AIDS Commission
UBOS .....	Uganda Bureau of Statistics
UDHS .....	Uganda Demographic Health Survey
UNAIDS .....	The Joint UN programme on HIV/AIDS
UNFPA .....	United Nations Population Fund
UNICEF.....	United Nations Children's Fund
USAID.....	US Agency for International Development
WHO .....	World Health Organisation

## ABSTRACT

This work examines sexual behavioural change and the likely predisposing factors in the era of HIV/AIDS among young adults in Uganda and South Africa. It explores the potential role of young adults' self-perceived risk of HIV infection in sexual behavioural decisions regarding adoption of safe sex practices, in particular '*use of condoms*' and '*limiting number of sexual partners*'. This work further recognises that Uganda and South Africa are countries with social, cultural, economic, and political contexts, which contexts have been described by many as inextricably linked with sexual behaviour, and which often determine the choices young adults make regarding sexual activity. These are therefore examined. In order to achieve this, a rigorous examination and analysis of self-perceived risk of HIV/AIDS in relation to societal factors was done to determine which variables of the two categories best explains sexual behaviour. This is placed in the context of young female adults between the ages of 15 to 24 in Uganda and South Africa.

The formulation of this study, which places emphasis on examining the potential role of self-perceived risk of HIV/AIDS as a predisposing factor for sexual behavioural change, and in Uganda and South Africa is based on a number of aspects as highlighted below:

- That both Uganda and South Africa at one point or another were and/or are faced with high prevalence levels of HIV/AIDS;
- That both have and/or are yet to be faced with high mortality, which is HIV/AIDS related and such profound consequences will/or have had inadvertent effects on individual, both socially and economically. In some respects, this has also affected individual perceptions regarding HIV infection;
- Recognition that the progression of HIV/AIDS in Uganda was much faster than in South Africa, and this meant higher prevalence, higher mortality rates, which then triggered both government and non-governmental response towards preventing further spread. Since these factors are beginning to emerge in South Africa, one therefore asks the question as to whether the pandemic will take similar trends as those reported in Uganda. This would also enable the identification of similarities and differences in the likely determinants of sexual behaviour considering these countries have different backgrounds;
- In both countries, education programmes have been rigorous and that the level of awareness is at a point that would enable sexual behavioural change to occur;
- A recognition that in Uganda, as shown in a number of reports and existing literature, the prevalence of HIV has declined and for this reason, it has become imperative to try and examine the likely factors leading to reduced HIV/AIDS prevalence, and to compare with what is happening in South Africa. This would enable the examination of any possible lessons that could be learnt in the reduction of the prevalence in South Africa.

In the quest to achieve the set goals, a number of steps were undertaken which included looking at available literature and more importantly analysing two sets of Demographic Health Survey (DHS) data. The South Africa Demographic Health Survey of 1998 (SADHS) and the Ugandan Demographic Health Survey (UDHS) of 2000/1. All young female adults between the ages of 15 to 24 were selected from both data sets. 3,229 and 4,559

young females adults were selected in Uganda and South Africa respectively leading to a total sample size of 7,688.

Findings showed that self-perceived risk of HIV/AIDS was one of the factors that did impact on sexual behaviour. This was more prominent in Uganda and less so in South Africa. Other factors found to affect sexual behaviour included age of respondent, socio-cultural and to a small extent, socio-economic factors. The conclusion that can be drawn from this work shows clearly that self-perceived risk of HIV/AIDS is an important factor determining sexual behaviour, but also shows that some societal variables are important. Therefore, in the face of HIV/AIDS and with increased levels of number of people experiencing deaths due to AIDS, self-perceived risk of HIV/AIDS is a factor worth considering when looking at sexual behaviour. As part of the recommendations, education programmes yet to be formulated should take into account the effect of HIV and AIDS on sexual behavioural change.

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## CHAPTER ONE: INTRODUCTION

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The topic of HIV (Human Immunodeficiency Virus) and AIDS (Acquired Immunodeficiency Syndrome) has of recent years evoked considerable concern. In fact, in many quarters, it is viewed with alarm. This uneasiness and concern is almost universal and is shared by Uganda,<sup>1</sup> and South Africa.<sup>2</sup> With it also goes almost a universal agreement that something ought to be done, that all possible measures should be taken to prevent it. However, when it comes to action, there is enormous and very often fundamental divergence of view.<sup>3</sup>

### FOCUS

This work aims to examine sexual behavioural decisions among young adults in Uganda and South Africa in the era of HIV and AIDS. It pursues a path towards exploring the potential role of young adults' self-perceived risk of HIV infection in sexual behavioural decisions regarding adoption of safe sex practices, in particular 'use of condoms' and 'limiting number of sexual partners'. This work further recognises that Uganda and South Africa are countries with social, cultural, economic, and political contexts, which contexts have been described by many as inextricably linked with sexual behaviour, and which often determine the choices young adults make regarding sexual activity.<sup>4</sup> An examination of these factors is additionally

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<sup>1</sup> Declan Walsh, *AIDS in Uganda: Careful talk can save lives*, <http://news.independent.co.uk/uk/uk/health/story.jsp?story=80057>, July 2001: Accessed September 2001.

<sup>2</sup> Nelson Mandela, *The challenge of HIV/AIDS*, <http://www.nat.org.uk/employers/eigbhtml#anchor567576>, May 1997: Accessed March 2000. Also see Alan Whiteside and Clem Sunter, *AIDS 2000: The challenge for South Africa*, Cape Town: Human and Rousseau Tafelberg Ltd, 2000: 71. Also see Rob Dorrington, David Bourne, and Debbie Bradshaw, 'The impact of HIV/AIDS on adult mortality in South Africa', *South African Medical Research Council Technical Report*, South Africa: Medical Research Council, 2001:7.

<sup>3</sup> President Thabo Mbeki has come under criticism for his stance on the question of HIV/AIDS. His stance on HIV/AIDS is in conflict with the orthodox views that HIV causes AIDS. He has not conceded that HIV infection is a necessary condition for the disease and accordingly, undermining the sense of national urgency in a state where, one in four are estimated to die of HIV/AIDS. See 'Mbeki's AIDS policy', in *The Mercury*, September, 19<sup>th</sup> 2000. See 'AIDS and President saga ends' in *Mail and Guardian*, January, 19<sup>th</sup> 2001. See 'Mbeki controversy over HIV/AIDS confusing' in *New York Review*, November, 16<sup>th</sup> 2000. Also see 'South Africa in denial', in *Daily News*, September, 19<sup>th</sup> 2000.

\* The use of the term 'use of condom' or 'condom use' throughout this study, which focuses on women, refers to women insisting that their partners use condoms during sexual intercourse.

<sup>4</sup> See J.W. McGrath and C.B. Rwabukwali, 'Anthropology and AIDS: The cultural context of sexual risk behaviour among urban Baganda women in Kampala, Uganda', *Journal of Social Science and*



executed as a basis for determining which of the two categories of factors provide the best plausible explanation for young adults' sexual behaviour, in the face of HIV/AIDS.

Selecting Uganda and South Africa is fundamental to a study of this nature, which attempts to examine the extent to which sexual behaviour is influenced by HIV/AIDS for one major reason - that despite the fact that HIV/AIDS first cases were diagnosed around the same time (1982),<sup>5</sup> the manner in which HIV/AIDS unfolded and later progressed varied, showing slow progression of HIV prevalence in South Africa in the 1980's and early 1990's, and a remarkable increase in the late 1990's till today, a trend that is completely the opposite in Uganda. Arguably, this variation in the HIV prevalence levels has implications on society in many respects, including people's perceptions regarding HIV/AIDS, which in turn affects and presents differences in the manner in which sexual activity and sexual behavioural change is viewed. The impetus for focusing on young adults (adolescents), as shall be seen in later sections, derives primarily from the sobering figures, which indicate that the highest infection rates are among young adults of ages 25 and below, particularly, in societies heavily affected by the HIV pandemic.<sup>6</sup> Yet, these young adults are the future of any given society. It is, however, of value that a brief epidemiology of HIV/AIDS be provided, to serve as the basis for comparing Uganda and South Africa in order to put the argument into context.

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*Medicine* 36 4(1993): 429-39. Also see D.H. Balmer, E. Gikundi, M. Kanyotu and R. Waithaka, 'The negotiating strategies determining coitus in stable heterosexual relationships', *Health Transition Review* 5 (1995): 85-95. Also see I.O. Orubuloye, J.C. Caldwell and P. Caldwell, 'African women's control over their sexuality in an era of AIDS', *Journal of Social Science and Medicine* 37 7(1993): 859-72. Also see Mead Over, 'The effects of societal variables on urban rates of HIV infection in developing countries: An exploratory analysis', in *Confronting AIDS, evidence from the developing world, selected background papers for the World Bank policy research report, confronting AIDS: public priorities in a global epidemic*, eds. Martha Ainsworth, Lieve Fransen and Mead Over, Brussels, Belgium: European commission, 1998: 39-51.

<sup>5</sup> Robert C.H. Shell, 'Half way to the Holocaust: The rapidity of the HIV/AIDS in South Africa and its social economic and demographic consequences', in *The Third African Population Conference Proceedings*. Durban 6-10 December, Union for African Population Studies (UAPS) 1 (1999): 155-66. Also see Gwenda Brophy, 'Modelling the demographic impact of AIDS: potential effects on the black population of South Africa', in *Facing up to AIDS: The socio-economic impact in Southern Africa*, eds. Sholto Cross and Alan Whiteside, London: Macmillan Press, 1993:133. Also see Uganda AIDS Control Programme (UACP), *AIDS surveillance report*, Entebbe: Ministry of Health, 1989-91.

<sup>6</sup> See S.J. Lachman, *Heterosexual HIV/AIDS as a Global Problem: Towards 2000*, Pietermaritzburg: The Natal Witness Printing and Publishing, 1997:21. Also see note 4, McGrath and Rwabukwali, 'Anthropology and AIDS', 430.

The escalation in the incidence and prevalence of HIV/AIDS has had far reaching effects. This disease epidemic has become a world health problem affecting lives in broader social dimensions, beyond the infected individuals. It has raised mortality rates,<sup>7</sup> lowered life expectancy and slowed down economic growth in the two decades of its known existence.<sup>8</sup> In demographic terms, one can, therefore, say that if not checked, AIDS will alter the demographic profile of those countries most affected.<sup>9</sup> The US Agency for International Development (USAID) report of 1999 estimated over 40 million people to have become infected globally by the end of 1997, since the beginning of the epidemic in the late 1970s, while over 11 million people had already died of the illness.<sup>10</sup> By December 2002, UNAIDS indicated that more than 20 million people had died of AIDS worldwide while approximately, an estimate of 42 million people were infected with the virus.<sup>11</sup>

The debilitating and destabilising fact is that while over 43.7 million people are reported to have acquired the HIV infection, 40 of the 43.7 million infections are in developing countries: Africa, Asia, Latin America and the Caribbean. Sub-Saharan Africa is reported to have faced the greatest impact of AIDS. An estimate of 29.4 million, both adults and children, were recorded by the end of 2002 in Sub-Saharan Africa, and what this means is that populations of those nations with high levels are exposed to high risks in terms of acquiring the HIV infection.<sup>12</sup> Adolescents are not to be ruled out of this enclave. In fact, United Nations Programme on HIV/AIDS (UNAIDS) cites a conservative analysis, which indicates that in countries where 15%

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<sup>7</sup> See note 2, Dorrington, Bourne and Bradshaw, 'Impact of HIV/AIDS', 2001:7. Also see N.K. Sewankambo, R.H. Gray, D. Serwadda, G. Kigozi, 'Mortality associated with HIV infection in rural Rakai District, Uganda', *AIDS* 14 15 (2000): 2391-2400. See R.E. Dorrington, D. Bradshaw and D. Budlender, *HIV/AIDS profile of the provinces of South Africa –indicators for 2002*, South Africa: Centre for Actuarial Research, Medical Research Council and the Actuarial Society of South Africa. 2002: 28.

<sup>8</sup> See Tony Barnett and Alan Whiteside, *AIDS in the twenty-first century, disease and globalisation*, New York: Palgrave Macmillan, 2002: 68, 184-195.

<sup>9</sup> See Ingrid Oellermann, 'AIDS Orphans on the increase in KZN', in *The Mercury*, March, 30<sup>th</sup> 1998.

<sup>10</sup> See the U.S Bureau of Census, *HIV/AIDS in the Developing world*, Report No. WP/98-2, Washington, DC: U.S Government Printing Office, 1999: 7.

<sup>11</sup> See UNAIDS/WHO, *A global overview of the epidemic*, [www.unaids.org/worldaidsday/2002/press/update](http://www.unaids.org/worldaidsday/2002/press/update), December 2002: Accessed, July 2002. Also see UNAIDS/WHO, *Hand book for legislators on HIV/AIDS, law and human rights, action to combat HIV/AIDS in view of its devastating human economic and social impact*, Geneva: UNAIDS/IPU, 1999:17.

<sup>12</sup> See UNAIDS/WHO, *AIDS epidemic update*, [www.unaids.org](http://www.unaids.org), December 2002: Accessed, January 2003.



of the adults are infected with the virus, one-third of 15 to 24 year olds are also infected.<sup>13</sup>

South Africa and Uganda undoubtedly fall under those countries faced with high levels of the disease epidemic and therefore, efforts have to be made to protect the future. After almost two decades since the first cases of AIDS were diagnosed in the two countries, there were notable differences in the levels of infection and in its rate of spread. In South Africa, the first two cases of AIDS were identified in 1982 although it was believed that thousands of people died unnoticed of the illness.<sup>14</sup> Available literature further suggests that HIV/AIDS in South Africa progressed at a low rate, between 1982 to 1993, and that it was only towards the end of 1995 that a significant number of people (9,000) were reported to have acquired the infection, and of whom at least 8,000 were still alive.<sup>15</sup> However, because there were no proper records providing such information for all parts of the South African society, estimates from the component projection models, suggested that only about 5% of all cases were reported, a recognition that the numbers could have been much higher than what was recorded. At that time, the HIV prevalence estimates were over 1.8 million people.<sup>16</sup> Attempts made to explain the noted increase in the progression of HIV/AIDS in South Africa at the time, suggested the extensive migrant labour patterns characterised by sexual relationships with non-regular sexual partners outside marital relations and regular partners.<sup>17</sup> Some scholars have focused on the return of

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<sup>13</sup> See *Conservative analysis of HIV/AIDS prevalence report*, [www.und aids.org/worldaidsday/2001/epuidate2001](http://www.und aids.org/worldaidsday/2001/epuidate2001), December 2001: Accessed, June 2001.

<sup>14</sup> See note 5, Shell, 'Half way to the holocaust', 155. See note 5, Brophy, 'Modelling impact of AIDS', 133. Douglas Webb, *HIV and AIDS in Africa*. London: Pluto Press, 1997:9. See note 2, Whiteside and Sunter, *AIDS 2000*, 47.

<sup>15</sup> See note 5, Shell, 'Half way to the Holocaust', 155. Also see note 14, Webb, *HIV and AIDS in Africa*, 9. See note 2, Whiteside and Sunter, *AIDS 2000*, 47. See Department of Health (DoH), *Summary report: 1998 national HIV sero-prevalence survey of women attending public antenatal clinics in South Africa*. Pretoria: Health Systems Research Epidemiology, 1999:4.

<sup>16</sup> See note 5, Shell, 'Half way to the Holocaust', 155.

<sup>17</sup> See note 14, Webb, *HIV and AIDS in Africa*, 27. Also see Mark Lurie, 'Circular migration and sexual networking in rural KwaZulu Natal: Implications for the spread of HIV and other sexually transmitted diseases', *Health Transition Review*, Sup. 3 7 (1997): 17-27. See C. Campbell, 'Migrancy, masculine identities and AIDS: The psychosocial context of HIV transmission in the South African gold mines', *Journal of Social Science and Medicine* 45 2 (1997): 273-281.

war veterans from the Angola region as part of the explanation of the spread of the pandemic.<sup>18</sup>

According to Uganda AIDS Control Programme (UACP), the first AIDS victim in Uganda, as in South Africa, was diagnosed in 1982.<sup>19</sup> However, by 1988 over 7,000 people were reported to have the infection, while 1.5 million people both adults and children were estimated to have acquired the HIV infection.<sup>20</sup> Rakai district in the southwest part of Uganda was the area most affected, although the disease later spread to the rest of the country.<sup>21</sup> While there may be other underlying factors as to why and how the pandemic spread fast in Uganda, reference is usually made to long distance transporters that had temporary sexual relationships during the course of their journey, particularly that percentage of the population that was engaged in the '*magendo economy*' (Black market), and smuggled and transported coffee, gold, and some food products to where they were most needed, which accordingly provided the 'economic and communication infrastructure of AIDS in Uganda'.<sup>22</sup> The dramatic and continued increase in the numbers of HIV/AIDS prevalence meant that action had to be taken to inhibit further spread and this resulted in a number of preventive education programmes country wide, a trend that has begun to be observed in South Africa.

Despite the extensive nature of HIV/AIDS education programmes, there still exists a fair amount of speculation and myths around the spread of HIV/AIDS<sup>23</sup>. In Uganda, they range from mosquito bites, toilet seats, and many others. There have been similar myths around the issue in South Africa. Myths around the cure of AIDS

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<sup>18</sup> Robert C. Shell, 'Trojan Horses: HIV/AIDS and military bases in Southern Africa, an epidemiological analysis with special reference to Grahamstown and Port Elizabeth in the Eastern Cape Province', *paper presented to the UAPS Conference*, Durban, December 6-10 1999:1-26.

<sup>19</sup> See note 5, UACP, *AIDS Surveillance report*, 1989-91. Also see Vincent Joan; 'Living on the edge: Changing social structures in the context of AIDS', in *Changing Uganda*, eds. Holger Barnett and Micheal Twaddle, Kampala: Fountain Press, 1991:119-123.

<sup>20</sup> See note 4, UACP, *AIDS Surveillance reports*, 1989-91.

<sup>21</sup> See Rekha Menon, Maria, J. Waver and Konde-lule, 'The economic impact of adult mortality in households in Rakai district Uganda' in in *Confronting AIDS, evidence from the developing world, selected background papers for the World Bank policy research report, confronting AIDS: public priorities in a global epidemic*, eds. Martha Ainsworth, Lieve Franssen, and Mead Over, Brussels, Belgium: European commission, 1998:325-39.

<sup>22</sup> See note 19, Joan; 'Living on the Edge', 116-17.

<sup>23</sup> See Elizabeth Jackson and Abigail Harrison, 'Sexual myths around HIV/STDs and sexuality: the gap between awareness and understanding among rural South African youth', in *The Third African*



have also emerged and the most incapacitating is the myth, which suggests that 'sleeping with a virgin is a cure for the disease'.<sup>24</sup> In reality, there are three prominent ways through which AIDS is transmitted: sexual activity, blood transfusion, and mother to child infection (before or during birth, although there is growing evidence of contracting the virus through breast-feeding). Sexual relations remain the predominant mode of HIV transmission accounting for over 80%.<sup>25</sup> It is therefore reasonable to expect that a change in sexual behaviour provides an 80% chance of reducing the risks of acquiring the infection and thus, the only hope is to devise large-scale societal sexual behavioural change strategies in order to reduce further spread of the virus.

### **THE PROBLEM: Linking Sexual Behavioural Change to Social Structural Factors**

The current status of the disease epidemic worldwide, and in particular among countries with the highest prevalence poses a great challenge to society, especially with no cure available. It ought to be noticed, firstly, that the problem lies in the failure of the population to adopt safer sex practices as preventative measures, since there is a relationship between adoption of safer sex practices and reduced levels of HIV/AIDS. Today, however, it appears that the problem has been compounded by a growing number of research and preventive programmes that have consistently neglected the impact that HIV/AIDS itself has on the population, particularly in terms of self-perceived risk of HIV infection, as a factor likely to affect sexual behaviour, and instead have primarily focussed their attention on societal variables (economic conditions, political, and cultural contexts).<sup>26</sup> This neglect unequivocally leads to the failure to capture some of the important preventive aspects pertaining to perceived risk

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*Population Conference Proceedings*, Durban 6-10 December, Union for African Population Studies (UAPS) 3(1999): 153-76.

<sup>24</sup> See note 2, Whiteside and Sunter, *AIDS 2000*, 58.

<sup>25</sup> See note 2, Whiteside and Sunter, *AIDS 2000*, 18. Also see Quarraisha Abdool Karim, 'Current state, trends and the impact of the HIV/AIDS epidemic in South Africa', *paper prepared for the 1998 South African Human Development report commissioned by the United Nations Development Programme*, 1998.

<sup>26</sup> See Pranitha Maharaj and Jonathan D. Tilotson, 'Barriers to HIV/AIDS protective behaviour among African adolescent males in township secondary schools in Durban South Africa', *Society in Transition* 32 1(2001): 83-96. Also see Jeremiah M. Twa-Twa, 'The role of the environment in the sexual activity of school students in Tororo and Palisa districts in Uganda', *Health Transition Review* Sup. 3 7 (1997): 67-81. See Charles Crothers, 'Factors affecting HIV/AIDS in South Africa: a framework and summary,' *Society in Transition* 32 1(2001): 5-21. Also see note 6, McGrath and Rwabukwali, 'Anthropology and AIDS', 429-39.

of HIV infection, and indeed the failure to formulate education programmes that take into account the potential role it has on the adoption of safe sex practices.

Furthermore, the problem lies in the failure of available research and preventive programmes to identify firstly, that depending on circumstances, individuals may be in a situation where they can control their actions despite existing social and economic constraints. Secondly, that people have different needs at different stages of development, from childhood to adulthood, and the failure to distinguish between categories of people in terms of their needs is indeed problematic, and this inadvertently leads to taking a broad view of adults' needs which affect their behaviour as equally suitable for understanding young adults' behaviour.<sup>27</sup> Part of evidence of such a mismatch relates to the question of women's socio-economic needs, and gender inequality, discussed by many as the sole reason for their risk-taking behaviour.<sup>28</sup> Solutions and suggestions offered often focus on the need to economically empower women, and such suggested solutions have been generalised to apply to all women, regardless of their age group and this may not adequately solve young adults' needs.

The continuous increase in the level of HIV/AIDS and its variation in terms of distribution in the different demographic profiles is perhaps evidence of that and partly explains the extent to which the failure to consider the influence of HIV/AIDS itself and specifically self-perceived risk of HIV infection as factors influencing sexual behavioural change and as one of the few potentially effective options of combating the spread of HIV infection has become limiting today. As a factor of focal interest, reasons as to why self-perceived risk of HIV/AIDS should be adopted are provided in detail in chapter two, but are briefly highlighted below.

**a) Variation in HIV and AIDS prevalence:** As a basis for creating a clear case, if we examine the trends of the epidemic in both countries, we note that the increasing

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<sup>27</sup> See Edward Kirumira, 'Creating space for gender and HIV/AIDS sensitive intervention for in school youth: lessons from the Ugandan Experience', *paper presented at a colloquium held at Natal-Durban University*, 8-11 April 2002.

<sup>28</sup> See note 26, Maharaj and Tilotson, 'Barriers to HIV/AIDS Protective Behaviour' 85. Also see Abigail Harrison, Nonhlanla Xaba, Pinky Kunene, and Nelly Ntuli, 'Understanding young women's risk for HIV/AIDS: Adolescent sexuality and vulnerability in rural KwaZulu Natal', *Society in Transition* 31 1 (2001): 69-77. See note 14, Webb, *HIV and AIDS in Africa*, 145.



prevalence of HIV in South Africa, and, the increasing number of AIDS cases in Uganda, continue to affect these societies in various respects; both social and economic. However, because HIV has no visible signs, it becomes difficult for one to acknowledge that it actually exists and at this point, it is understandable that people would deny its existence. It only begins to be recognised once people begin falling ill. Because HIV rapidly spread in Uganda earlier than it did in South Africa, and with an average of at least nine years before visible signs of the infection emerges,<sup>29</sup> it is only in the last ten years or so that the impact of the high HIV prevalence has begun to be noted. The Ugandan epidemic has reached a stage referred to by many as a 'mature epidemic' with increased deaths and AIDS cases as described below, which this study assumes will have an impact on individual sexual behaviour. In other words, in cases where AIDS prevalence increases, then people have reasons to believe the existence of the disease. This is different from the epidemic in South Africa whose explosion in HIV prevalence was observed only in the late 1990's.

**b) Morbidity and Mortality:** Most importantly, perhaps, is that increased prevalence of AIDS naturally leads to increased illness and death, and the argument raised suggests that as the level of mortality due to AIDS increases, so does self-perceived risk of HIV/AIDS. Available data on mortality indicates increasing number of deaths in both countries. Although it is difficult to obtain comparable statistics for the two countries, what is available indicates that in Uganda, despite the declining HIV prevalence, the number of *reported* AIDS cases annually continue to increase, and that AIDS is responsible for 12% of annual deaths in Uganda. In addition, about 90% of people in Uganda acknowledge that they have seen or know some one who has, or died of AIDS.<sup>30</sup> In South Africa, the Medical Research Council (MRC) has put data together as evidence of increasing mortality in South Africa. Their report, based primarily on the ASSA600 forecast model, estimates that 40% of all adult deaths, aged 15 to 49, were AIDS related in a period of one year, (July 1999 to June 2000)

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<sup>29</sup> See note 8, Whiteside and Barnett, *AIDS in the twenty-first century*, 168-169.

<sup>30</sup> See Uganda AIDS Control Programme (UACP), *A situation analysis 2002*, [www.aidsuganda.org](http://www.aidsuganda.org), October 2002: Accessed September 2002. Also see UNAIDS/WHO, *Epidemiological fact sheet on HIV/AIDS and sexually transmitted infections in Uganda*, [www.unaids.org](http://www.unaids.org), October 2002: Accessed, July 2002. See Uganda Bureau of Statistics (UBOS) and ORC Macro, *Uganda Demographic Health Survey, 2000-2001*, Calverton, Maryland: UBOS and ORC Macro, 2001:172

which is relatively high.<sup>31</sup> Therefore as more people begin experiencing deaths due to AIDS, they are more likely to change their sexual behaviour.

**c) Awareness programmes:** Out of the increased level of HIV and AIDS prevalence and increased mortality as presented in *a*, and *b* above, emerges the need to prevent further spread. This is characterised by education programmes, which are meant to provide information to the population. The emergence of the anti-AIDS educational programmes if one observes closely, coincides with increased levels of the disease epidemic. In Uganda these started as early as 1987,<sup>32</sup> which means that people did not only have visible evidence but were also able to clearly label the problem and therefore this would increase their self-perceived risk of HIV/AIDS. In South Africa, this trend has begun to be noticed. In the context of the three fundamental aspects above and in the face of HIV and AIDS, to understand likely determinants of sexual behaviour and sexual behavioural change, it would seem fair to expect that self-perceived risk of HIV/AIDS is a plausible predisposing factor, and one would expect self-perceived risk of HIV/AIDS to have an impact on sexual behaviour in Uganda more than in South Africa.

### Why Focus on Young Adults (Adolescents) Reason

Recent studies have examined HIV/AIDS among young adults and have found that HIV/AIDS is significantly affecting young adolescents in general. Most pertinently, this is reflected in young adults' failure to recognise the unsafe era they are living in, and their inability to negotiate safer sex. The importance of focusing on adolescents, and the impetus for understanding their sexual behavioural determinants, is primarily derived from concerns that emerge out of existing research on the prevalence of HIV/AIDS among this group.<sup>33</sup> Firstly, existing research shows changing

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<sup>31</sup> See note 2, Dorrington, Bourne and Bradshaw, 'Impact of HIV/AIDS', 7, 30. Also see note 8, Whiteside and Barnett, *AIDS in the twenty-first century*, 193-5. See note 7, Dorrington, Bradshaw and Budlender, *HIV/AIDS profile of the provinces of South Africa*, 28.

<sup>32</sup> See NADIC, *Uganda Aids Control Programme report*, [www.aidsuganda.org](http://www.aidsuganda.org), October 2002: Accessed July 2002

<sup>33</sup> E. Weiss, D. Whelan, G.R Gupta, *Vulnerability and Opportunity: Adolescents and HIV/AIDS in the Developing World*, Washington DC: International Centre for Research on Women, 1996:11. Also see Konde-lule, 'Adolescent sexual networking and HIV transmission in rural Uganda', *Health Transition Review*, sup. 3 7 (1997): 89-100. See S.J. Jejeebhoy, 'Adolescent sexual and reproduction behaviour: A review of evidence from India', *Social Science and Medicine*, 46 10 (1998): 1275-1290. Also see J. Elford, 'HIV and AIDS in adolescence: Epidemiology', in *AIDS and Adolescence*, ed. L. Sherr Amsterdam: Harwood Academic Publishers, 1997: 15-23

demographic patterns of HIV/AIDS, demonstrating HIV/AIDS as increasingly becoming an epidemic of the young with 50% of new infections occurring among people under the age of 25.<sup>34</sup> This is remarkably visible in Uganda and South Africa as illustrated in the table below. Table 1.1 (below) illustrates clearly the extent of the problem, showing HIV prevalence figures distributed across the different age groups, 15 to 19, and 20 to 24 in Uganda and South Africa over a ten-year period.

From the table, we can observe a disproportionate prevalence of HIV infection among those in the age bracket 15 to 19 and 20-24. The table shows that declines observed among those in the ages 15 to 19, are matched with increased prevalence in those between the ages 20 to 24 in both countries. Whiteside and Barnet comment on this aspect and suggest that this 'implies that the infections are being delayed rather than being prevented'.<sup>35</sup> However, HIV prevalence observed in the period 1997-1998 shows an increase in the prevalence of infection of about 8 % in both age groups in South Africa, an increase that is not explained in general literature. On a general note, what the table shows is an increase over time in the prevalence of HIV in South Africa, and further, shows clearly, why attention or emphasis on HIV/AIDS in Uganda has to a large extent focused on adolescents in the last decade. It also shows that the prevalence of HIV in Uganda among young adults has declined and, therefore, it becomes clear as to why this study (of a comparative nature) re-emphasizes the examination of young adults (adolescents) and in particular the effect of self-perceived risk of HIV/AIDS.

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<sup>34</sup> See note 6, Lachman, *HIV/AIDS as a global problem*, 21. Also see Linda M. Richter and Jill Swart-Kruger, 'Aids-risk among street children and youth: Implications for intervention', *South African Psychology Journal* 25 1 (1995): 31-38



Table 1.1: HIV prevalence rate among antenatal attendees aged 15 to 24 in Uganda and South Africa

Period	South Africa, <sup>36</sup>		Uganda, <sup>37</sup>	
	Prevalence (%)		Prevalence (%)	
	15-19	20-24	15-19	20-24
1990	< 0.8	< 0.8	32.0	37.9
1991	< 0.8	< 0.8	28.0	29.7
1992	< 0.8	< 0.8	23.0	29.5
1993	0.8	0.8	19.7	29.3
1994	6.5	9.0	14.7	25.2
1995	9.5	13.2	14.0	18.9
1996	12.1	17.4	9.0	16.6
1997	12.1	17.4	9.8	16.5
1998	21.0	26.1	7.0	14.3
1999	16.5	25.6	6.3	10.4
2000	16.0	29.1	na	na

Secondly, most adolescent-focussed research on sexual behaviour centre attention on aggregate societal variables such as socio-economic, and gender-based powerlessness, and need for emotional intimacy as reasons why young adults remain in risky sexual relationships. While research of this kind is vital in laying the foundations for understanding sexual behaviour, its ramifications are limited to an extent. As highlighted earlier, one cannot generalise such aspects to all categories of people. What is important for a particular group may not be important for another. Unless these demarcations are made, and new guidelines are formulated, sexual behavioural research might remain faced with gaps.

### PRINCIPAL OBJECTIVES

The impetus for the study is three-fold. First, it is intended to find out the extent to which self-perceived risk of HIV/AIDS influence sexual behavioural change. Secondly, it aims to establish, in relation to HIV risk perception, the extent to which societal and environmental factors constrain individuals' sexual behaviour, based on a comparative analysis between Uganda and South Africa. This is done within a framework of 'safer sex practices' (condom use and number of sexual partners) as measures of sexual behavioural change among adolescents, taking into consideration the level of awareness around HIV/AIDS in both countries.

<sup>35</sup> See note 8, Whiteside and Barnett, *AIDS in the twenty-first century*, 119.

<sup>36</sup> See note 8, Whiteside and Barnett, *AIDS in the twenty-first century*, 121. Also see note 2, Whiteside and Sunter, *AIDS 2000*, 51.

<sup>37</sup> See Ministry of Health (MoH), *HIV/AIDS situational summary*, [http://www.health.go.ug/hiv\\_graphs.htm](http://www.health.go.ug/hiv_graphs.htm), September 2000: Accessed October, 2002.

Specifically, the first part raises questions that require one to establish the relationship between self-perceived risk of HIV/AIDS, obtained partly from their knowledge of HIV/AIDS, regarding means of the spread of the disease and prevention strategies including the risks involved, as well as risk perception obtained from knowing someone who has or has died of HIV/AIDS. The second part relates specifically to societal factors, and focuses on whether socio-economic factors such as economic status, education attainment, school environment, and, socio-cultural factors, in particular ethnicity and region and type of residence, impact on an individual's decisions regarding adoption of safer sex practices. This enables one to find out which of the two categories of variables best explain sexual behaviour, and how these differ in the selected countries.

The third and final goal is based on the information highlighted earlier regarding the level of HIV/AIDS in Uganda and South Africa, which show increasing levels of HIV/AIDS in South Africa and a reduction in Uganda. From that context, the study seeks to establish whether there are any lessons that South Africa can learn from Uganda. Policy suggestions will be formulated in relation to the problems analysed.

## **BRIEF DESCRIPTION OF METHODOLOGY**

### ***Research Area and Population***

The area of research is HIV/AIDS. Specifically, this study focuses on the examination of the determinants of sexual behaviour measured by '*reduced number of sexual partners*' and '*use of condoms*' in Uganda and South Africa. Further, since the study employs two Demographic and Health Survey (DHS) data sets for Uganda and South Africa, and, employs the women's questionnaire, whose principal respondents are females aged 15 to 49. It focuses on only young female adults (adolescents) defined as people aged 15 to 24. Not only is the criterion for selecting this questionnaire based on the type of respondents, it is also based on a practical consideration whereby questions on sexual behaviour and HIV/AIDS at least in South Africa were asked.

Young adults as a group, apart from being identified as those in the ages 15 to 24, have further been divided into two categories, 15 to 19, and 20 to 24 years. This is fundamental to the study since people's behaviour is sometimes understood in relation to their age group, which simultaneously affect how they define and

understand issues. Teenagers,\* for example, define and understand issues in a manner that is different from those in the later ages. In the same way, their behaviour, needs, subcultures, which in most cases are defined by the age category, differ, and continue to change as they move from one stage of development to another. However, even though such details are beyond this study, it is important to highlight this factor in this particular study whose focus is on perceptions. It is also worth noting that selecting these individuals is not only based on their age, but also on the fact that these individuals are still developing a world outlook that will guide them through life and are experimenting and trying new roles and new activities including sexual activities for verification of what is most suitable.<sup>38</sup> This puts them at high risk, particularly in this era of HIV and AIDS.

### ***Methods and data***

The study relies mainly on quantitative data. Since the study is of a comparative nature, secondary data has been employed for the analysis. Two Demographic Health Survey (DHS) data sets have been used, that is the Uganda Demographic Health Survey (UDHS) data, of 2000/2001 and the South African Demographic Health Survey (SADHS) data, of 1998. The sample design employed for the collection of data by DHS in both countries, involved a two-stage sample selection procedure. In South Africa, obtaining the sample started with the selection of provinces, households and then members of households eligible for the survey. In Uganda, the selection started with parishes, sub-counties, counties and then districts. From this selection, lists of households were obtained for interviewing. The sample design was based on the Enumerator Areas (EAs) obtained by Census 1991 and 1996 for Uganda and South Africa respectively. The analysis employs both frequencies, cross tabulations, and multiple regression analysis procedure.

### ***Selected Variables***

**Dependent Variables:** The dependent variables for this analysis are those associated with behaviour change. These include:

- Whether respondents had non- regular sexual partners;

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\* The term 'Teenagers' refers only to those between the ages 15-19 years.

<sup>38</sup> See Johanna Wynn and Rob White, *Rethinking Youth*, London: Sage Publications, 1997:459-460.



- Whether respondents used a condom the last time they had sexual relations.

*'Non-regular sexual partners'* in this analysis refers to any sexual relations that occurred between partners in relationships of less than one year. This is because the concept of non-regular partners is not a particularly clear one. This is explained in greater detail in chapter four. Conversely, any sexual relationships of more than one year or those that had never had sexual intercourse are classified as regular partners. It is coded, as '0' if respondent has never had sex or has a regular sexual partner and '1' if the respondent has non-regular sexual partner[s].

*'Condom use'*: In the second outcome variable, all those that used a condom the last time they had sex with a non-regular partner were included. This is based on literature that links use of condoms with non-regular sexual partners and almost zero use of condoms with regular partners.

**Independent Variables:** A number of independent variables have been included as likely determinants of one's sexual behaviour. These are classified into different categories as presented below.

### **Key Variable**

***Self-perceived risk of HIV infection:*** It has been assumed that perceived risk of HIV/AIDS is likely to have an impact on sexual behaviour. This variable is composed of the following variables: *'Knowing someone who has, or died of, HIV/AIDS'*, and *'Whether the respondent knew that a healthy person could get AIDS'*. Using binary logistic regression, an examination of the probability that these factors may impact on one's sexual behaviour is carried out. However, the analysis of the variables above meant that different levels of perception had to be obtained to illustrate precisely the difference in sexual behaviour according to level of perception. Counts were constructed of the number of 'yes', 'don't know' (dk), and of 'no' responses and then grouped all respondents into two categories. The first ('low risk') corresponds to unequivocal evidence of all responses existing being negative plus those that did not know, while the second ('high risk') takes all the responses that were positive. Although there was need to create a middle category, there were very few responses and hence these were combined with the low risk category.

### Other Explanatory Variables

There are a number of aggregate variables that provide plausible explanations for individual sexual behaviour. These are clearly elaborated on in chapter four, but we can briefly summarise them here. Literature worldwide has examined socio-economic variables, and has found that young adults' involvement in risk- behaviour was attributed to their economic status. They indicate that the number of those having multiple sexual partners increased in areas where employment was hard to find.<sup>39</sup> Such studies indicate that women tend to have multiple partners as economic coping mechanisms or are in socio-economic conditions so poor, that sex is used as a survival mechanism.

Social cultural variables have also been explored at length. Studying sexual behaviour among Baganda women in Uganda, McGrath found that even though Baganda women were willing to change their behaviour in the face of AIDS, they felt unable to stand up to their spouses due to cultural orientations.<sup>40</sup> Furthermore, culturally, acceptance of gender-specific sexual behaviour, discomfort, with negative connotations attached to condoms and female contraception featured more prominently, a factor compounded by lack of communication among the partners.<sup>41</sup> Selected proxy variables for socio-culture are explored in detail in chapter four.

Age (recorded age at last birthday) of an individual was looked at, but since only young female adults are the focus, a simple classification of those in the ages 15 to 19 and 20 to 24 was adopted to aid analysis. This was also to ascertain whether there were differences in sexual behaviour among young adults in the different age groups

There seems to be strong differences between behaviour of urban and rural dwellers. Thus, place of residence was analysed in relation to sexual behaviour and the effect these two dwelling places have on sexual behaviour examined. For example, the demand for commercial sex workers seems likely to be greater in cities than in rural areas. This is coupled with increased numbers of migrant workers temporarily in urban areas.

The nature of this study requires me to investigate the importance of political

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<sup>39</sup> See note 6, Over, 'The effects of societal variables', 41. Also see note 4, Orubuloye and Caldwell, 'African women in an era of AIDS', 859-872. See note 14, Webb, *HIV and AIDS in Africa*, 145.

<sup>40</sup> See note 6, McGrath and Rwabukwali, 'Anthropology and AIDS', 435-6

leadership, which is at the centre of the smooth running of intervention programmes to prevent the spread of HIV/AIDS. However, while the study acknowledges the significance of this variable and as acknowledged in literature (see chapter two), the data does not, in an appropriate manner allow for the analysis of this variable and for this reason, this variable has not been included in the analysis.

### POTENTIAL VALUE OF THE STUDY

HIV/AIDS has had the most profound effect on human illness and death and this has resulted in an urgent need to prevent it. However, there is a need for a greater understanding of the epidemic, as it exists in specific countries, especially where the factors that facilitate its spread vary from country to country. This, however, does not mean that there are no similarities, especially where people share similar regional factors, such as is the case in sub-Saharan Africa, characterised by poverty and inequality, as well as high HIV/AIDS prevalence. Understanding a country's social dynamics is important because it is the basis for understanding where to begin when dealing with the problem

Selecting Uganda and South Africa avails one with the opportunity to look at contrasting aspects: Uganda is one of the African countries that have had high rates of HIV/AIDS. However, reports indicate that there have been substantial reductions in the national HIV incidence and prevalence.<sup>42</sup> The prevalence of HIV infection was noted to be as high as 18.5% in 1995, and has since then declined to 6.1 in 2000, a difference of 12.4%.<sup>43</sup> However, the same cannot be said for South Africa. The prevalence of HIV infection in South Africa shows an upward trend. Reports show that there has been at least 2.4% increase in the prevalence rate from 1999 (22.4%) to

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<sup>41</sup> See M.N. Kisseka, 'Sexual attitudes and behaviour among students in Uganda', *Journal of Sex Research* 12 2 (1976): 104-116. Also see note 4, Balmer and Gikundi, 'Negotiating strategies', 94.

<sup>42</sup> See note 37, MoH, *AIDS situational summary*, 2002. Also see Joseph K. Konde-Lule, 'The declining HIV sero-prevalence in Uganda: what evidence?' *Health Transition Review* Sup 5(1995): 27-33. Also see Albert H.D Kilian, Simon Gregson, Bannet Ndyabangi, Kenneth Walusaga and Walter Kipp, 'Reductions in risk behaviour provide the most consistent explanation for declining HIV-1 prevalence in Uganda', *AIDS* 13 3 (1999): 391-398.

<sup>43</sup> See NADIC, *The HIV/AIDS epidemic, prevalence and impact: Situational analysis 2002*, [www.aidsuganda.org](http://www.aidsuganda.org), October 2002: Accessed August 2002



2001 (24.8%)<sup>44</sup>. There are, however, anecdotal reports, which indicate that the epidemic is stabilising. Therefore, comparing the two countries particularly looking at the likely determinants of sexual behaviour, as a preventive measure for further spread is still important from the context above

The study presented here is further significant, not only for governments, but also for international organisations such as UNAIDS and WHO, when designing world health policies. It aims at establishing whether social policies or social preventive methods for HIV/AIDS are global, regionally, culturally or simply country specific in nature. It is thus significant in that it contributes to the examination of whether measures applicable in one country are applicable in another.

### STRUCTURE

In this chapter, the aim was to show the focus of this work and to provide the background for it. As an introductory chapter, it sets out the principal objectives and the procedures taken to achieve them. Overall, this chapter introduces the research in a manner which highlights how it's focus contributes to an understanding that, apart from the individual's social environment, an individual's own experience of HIV/AIDS affects sexual behaviour and sexual behavioural change. It also suggests that one has to look at both the individual and the environment that surrounds the individual to understand behaviour. Chapter two reviews the prevalence and incidence of HIV/AIDS in Uganda and South Africa in greater detail, and shows how the pandemic progressed over time, as well as emphasising the socio-economic cultural, and political circumstances in which this occurred and further how different sectors have reacted to this prevalence. It is perhaps important to mention here that the way the pandemic unfolded and progressed in both countries is a fundamental foundation for this study and, therefore, needs to be clearly presented. The chapter that follows examines behaviour, in particular sexual behavioural change, since it is assumed that sexual behaviour change is essential for reduced prevalence of HIV/AIDS among the population, although the focus is on young adults. The chapter further presents both

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<sup>44</sup> See Averting HIV/AIDS Organisation, *HIV/AIDS statistics in South Africa*, <http://www.avert.org/safricastats.htm>, June 2002: Accessed Jan 2003. See note 11, UNAIDS/WHO, *A global overview of the epidemic*, 2002

conceptual and theoretical understandings of sexual behavioural change. Chapter four describes the data used and analysis procedures, including the selected variables. It also includes a section on background characteristics of respondents. Chapters five and six present the analysis of condom use and the number of sexual partners, respectively, as sexual behavioural change measures. Chapter seven combines the significant factors for condom use and number of partners as obtained from chapter five and six, and discusses in general, the factors predisposing individual sexual behaviour. Chapter eight rounds off the project by providing the summary, conclusion and recommendations. This is followed by annexure 1 which is a formulated preventive programme aimed at bringing about sexual behavioural change among young adults. This was designed based on the results, which demonstrate clearly the significant importance of self-perceived risk of HIV/AIDS.

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**CHAPTER TWO**  
**SITUATING THE HIV/AIDS PROBLEM IN UGANDA AND SOUTH AFRICA:**  
**INCIDENCE AND PREVALENCE**

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**INTRODUCTION**

The HIV/AIDS epidemic is estimated by number of reported cases from antenatal attendees, blood donors, and voluntary testing, which in itself may not provide a clear picture. What serves to confirm these estimates, however, are the increasing number of deaths, and number of orphans worldwide. This chapter provides the ground on which comparison of South Africa and Uganda is based but, most importantly, aims to show that the manner in which HIV and AIDS unfolded and progressed in both countries forms the foundation on which self-perceived risk of HIV/AIDS, the key factor under analysis, is understood and analysed. To achieve this aim, the chapter begins by reviewing the prevalence of HIV/AIDS from an international perspective, and then focuses on sub-Saharan Africa as a basis for understanding the magnitude HIV/AIDS poses in the countries selected for this study, compared to the international prevalence. Sections that follow specifically focus on Uganda and South Africa showing how HIV/AIDS unfolded and progressed, providing the convergences and divergences as well as the response of the various sectors in the two countries. It is important to indicate that such a comparison is subjected to numerous limitations, including the fact that different countries employ different methods of measuring the prevalence of the epidemic. A discussion of the socio-economic, cultural and political context is presented as a basis for putting into context the emerging divergences and convergences in terms of HIV/AIDS.

**KEYWORDS:** HIV/AIDS incidence and prevalence, socio-cultural context, economic context, HIV/AIDS impact and response, Uganda, South Africa.

**GLOBAL SUMMARY OF THE HIV/AIDS EPIDEMIC**

The AIDS epidemic continues to spread despite efforts by governments, non-governmental organisations, and other concerned bodies. In 1997, the World Health



Organisation (WHO) reported an increase in the number of heterosexual AIDS transmissions in developed countries.<sup>1</sup> These countries initially had a higher incidence of infection through injected drug use as compared to developing countries that have predominantly experienced heterosexual AIDS transmission from the start of the epidemic.<sup>2</sup> The AIDS epidemic continued to increase worldwide and by 1999, an estimate of 34.3 million people were said to be infected and the number of newly infected persons was also said to be increasing. According to the December 2002 United Nations joint programme on HIV/AIDS (UNAIDS) global report, estimates of those infected rose from 34.3 in 1999, to over 42 million in 2002, an equivalent of 7.7 million more people infected in a period of at least 3 years.<sup>3</sup> It was further recorded that majority of these new infections occurred in developing countries, and, among young adults, of which a third were said to be between the ages 15 to 24.<sup>4</sup> Of note, in most developing countries, the epidemic is threatening to alter tremendously the economic and societal fabric, raising questions on development itself, particularly in Sub-Saharan Africa where the number of infected persons is estimated at 29.4 million people.<sup>5</sup>

The impact of the HIV/AIDS problem is further illustrated by the significant changes that are likely to occur in the demographic patterns with a reported increase in the number of young people infected with the virus. This trend implies that most of the countries, particularly those countries most affected by the epidemic, will profoundly be economically and socially affected since the number of affected coincides with those economically active.<sup>6</sup> In reaction to this development, former president Nelson Mandela, speaking at the World Economic Forum in Davos in 1997,

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<sup>1</sup> See D.W. FitzSimons, 'The global pandemic of AIDS', in *Facing up to AIDS: The socio-economic impact in Southern Africa*, eds. Sholto Cross and Alan Whiteside, London: Macmillan Press, 1993:13-33.

<sup>2</sup> See note 1, FitzSimons, 'The global pandemic of AIDS', 24.

<sup>3</sup> See UNAIDS/WHO, *AIDS epidemic update*, [www.unaids.org/epidemic/report](http://www.unaids.org/epidemic/report), December 2002: Accessed January 2003.

<sup>4</sup> See note 3, UNAIDS/WHO, *AIDS epidemic update*, 2002.

<sup>5</sup> See note 3, UNAIDS/WHO, *AIDS epidemic update*, 2002. Also see UNAIDS/WHO, *Regional HIV/AIDS statistics and features*, [www.unaids.org/worldaidsday/2001/EPIgraphics](http://www.unaids.org/worldaidsday/2001/EPIgraphics), December 2001: Accessed, March 2002.

<sup>6</sup> See UNAIDS/WHO, *AIDS epidemic update*, [http://unaids.org/epidemic\\_update/report/Epi\\_report.htm](http://unaids.org/epidemic_update/report/Epi_report.htm), June 2000: Accessed February 2001. Also see J.C.Caldwell, 'The impact of the African AIDS epidemic', *Health Transition Review*, sup.3 7 (1997): 169-188. Also see Alan Fleming, 'Lessons from tropical Africa for addressing the HIV/AIDS epidemic in South Africa', in Sholto Cross and Alan Whiteside, eds. *Facing up to AIDS: The socio-economic impact in Southern Africa*. London: Macmillan Press, 1993: 295-313.

appealed for international support in the fight against AIDS. He is quoted here as having said that ‘the challenge of AIDS can be overcome if we work together as a global community. Let us join hands in a caring partnership for health and prosperity as we enter the new Millennium.’<sup>7</sup> Dr. Peter Piot, the then executive director of UNAIDS, shared the same views, which highlights how HIV/AIDS has raised concern worldwide.<sup>8</sup> In light of the above, one can argue that HIV/AIDS has become a global concern, particularly because it is an emerging force affecting the global economy, as well as a new route to poverty, since it creates dependants such as orphans who need support to survive and further need support for their surviving families in many nations of the developing world.<sup>9</sup>

The effects of HIV/AIDS on national levels are devastating. Lachman and others explain that most countries with high prevalence levels of HIV are faced with an increasing reduction in the development index due to the dramatic drop in life expectancy.<sup>10</sup> South Africa and Uganda fall under this category. According to the National AIDS Documentation Centre (NADIC), the life expectancy of economically productive Ugandans dropped from 48 years in 1990 to 38 years by 1997.<sup>11</sup> Even though different reports appear to provide different figures regarding life expectancy, what is important is the noted consistency in the general negative trend in life expectancy. Similar trends are noted in South Africa with life expectancy dropping from 63.2 in 1993 to 48 to 53.2 years in 1998.<sup>12</sup> The effects of HIV/AIDS are diverse

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<sup>7</sup> See Nelson Mandela, *The challenge of HIV/AIDS*, <http://www.nat.org.uk/employers/eigbhtml#anchor567576>, May 1997: Accessed March 2000.

<sup>8</sup> See note 7, Mandela, *Speech on challenge of HIV/AIDS*, 1997.

<sup>9</sup> See Alan Whiteside and Tony Barnett, *AIDS in the twenty-first century, disease and globalisation*, New York: Palgrave Macmillan, 2002: 177, 196.

<sup>10</sup> See S.J Lachman, *Heterosexual HIV/AIDS as a global problem: Towards 2000*, Pietermaritzburg: The Natal Witness Printing and Publishing, 1997:18-21. Also see note 1, FitzSimons, ‘The global Pandemic of AIDS’, 30-31. See the U.S Bureau of Census, *HIV/AIDS in the Developing world*, Report No. WP/98-2, Washington, DC: U.S Government Printing Office, 1999:14. See John Stover, ‘the future demographic impact of AIDS: what do we know?’ in *Confronting AIDS, evidence from the developing world, selected background papers for the World Bank policy research report, confronting AIDS: public priorities in a global epidemic*, eds. Martha Ainsworth, Lieve Fransen, and Mead Over, Brussels, Belgium: European commission, 1998: 31. Also see note 9, Whiteside and Barnett, *AIDS in the twenty-first century*, 179, 278.

<sup>11</sup> See National AIDS Documentation Centre (NADIC), *National updates*, [www.aidsuganda.org](http://www.aidsuganda.org), October 2002: Accessed October 2002.

<sup>12</sup> See Quarraisha Abdool Karim, ‘Current state, trends and the impact of the HIV/AIDS epidemic in South Africa’, *paper prepared for the 1998 South African Human Development Report, commissioned by the United Nations Development Programme*, 1998:1-26. Also see 9, Whiteside and Barnett, *AIDS in the twenty-first century*, 179, 278.



and go beyond reductions in life expectancy to other aspects in society, but for a society's life expectancy to reduce to a level as noted in Uganda and South Africa, implies that these societies have high HIV/AIDS prevalence, which necessitate investigation. Before examining the HIV/AIDS situation in Uganda and South Africa, it is imperative to show the socio-cultural context, through which HIV/AIDS unfolded and in which context an examination of self-perceived risk of HIV/AIDS is located. It is also through these intricate social circumstances that some of the determinants of sexual behaviour are understood.

### **THE SOCIAL, POLITICAL, ECONOMIC AND CULTURAL BACKGROUND OF THE SELECTED COUNTRIES**

There is a general misconception that tends to present Africa as having a homogeneous culture. However, this is not the case. There are diverse beliefs and ideas that are specific to countries and within these countries are further cultural, political and social differences among the citizens themselves. Uganda and South Africa are countries that illustrate the above description, with economic, political, social and cultural variations between them. These variations range from their modes of production to resource endowments, from levels of urbanisation, distribution of health facilities to education, and other development related services. The presentation of the socio-economic, cultural and political context of Uganda and South Africa as highlighted above is to build a picture of the two countries as well as show the circumstances in which HIV/AIDS evolved and progressed, and, the circumstances in which sexual behavioural change can be explored.

From a geographical point of view, Uganda is a small land-locked country, located in the east African region. It is bordered by Sudan in the north, Kenya in the east, Tanzania, Rwanda and Burundi in the south, and the Democratic Republic of Congo in the west. Uganda has an approximate total population of 23 million people according to the Uganda 2001 census. In comparison, South Africa is geographically an open country, surrounded by the Indian and Atlantic Ocean. Located at the southern tip of the African continent, South Africa is bordered in the northern parts by Namibia, Botswana, Zimbabwe, Mozambique, and Swaziland, and, Lesotho, which is enclosed within South Africa (See Annexure 1). In terms of size South Africa is approximately five times larger than Uganda (Uganda- 237, 000 sq/km, South Africa-

1, 233,404 sq/km) and has an approximate total population of 43 million people according to census 2000.

### ***Political and Cultural Differences***

The political history of most African countries has shaped their present socio-economic status. This is re-emphasised by Whiteside and Barnett, who stipulate that 'since the sixteenth century, there has been little in a way of 'normality' in many regions of Africa, if that means periods of relative social peace and material security'.<sup>13</sup> Certainly, that has been the case in Uganda and South Africa. Aspects of disorder, discrimination, inequality, poverty, terror, and exploitation have prevailed and these have been the foundations from which the HIVAIDS pandemic has grown and thrived. Let us examine cases in Uganda and South Africa as the selected countries for this study; -

### **Uganda**

It is important to note that Uganda is a result of fragmented portions of different ethnic groups that were put together during the scramble and partition for Africa as well as demarcations created during the British colonial rule.<sup>14</sup> These fragmented portions of people have created a lot of ethnic political and cultural diversity. In essence, this great diversity in ethnic composition, indigenous cultures and social and political institutions have led to tremendous political turmoil and this has affected the country's economic and social context.<sup>15</sup> Politically, this diversity has turned out to be a stumbling block to the formation of a unified state. Uganda has for a long time been ruled by political leaders, who depend on the already existing weak ties among the different ethnic groups, use ethnic armies, murder and terror to maintain civil order. The post-independence history of Uganda is a history of bloodshed, misrule, corruption and grave abuse of human rights.<sup>16</sup> Naturally these instabilities have hindered economic development, and have rather perpetuated poverty and poor living conditions amongst the population as shall be discussed. Because Uganda has existed under such conditions for a long time, and has failed to cultivate a sense of national

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<sup>13</sup> See note 9, Whiteside and Barnett, *AIDS in the twenty-first century*, 128.

<sup>14</sup> See W. Sentenza-Kajubi, 'The historical background to the Ugandan crisis, 1966-86', in *Beyond crisis: Developmental issues in Uganda*, eds. Paul B. Wiebe and Cole P. Dodge, Kansas: Multi-Business Press, 1987:25-40. Also see note 9, Whiteside and Barnett, *AIDS in the twenty-first century*, 132.

<sup>15</sup> See note 14, Sentenza-Kajubi, 'The historical background', 25.

<sup>16</sup> See note 14, Sentenza-Kajubi, 'The historical background', 25.

identity, one of the major concerns of the current leadership has been aimed to 'evolve a national identity, to reconcile and synthesise the drive towards modernisation with the conservation of the cultural matrix as a means of channelling the energies of the people in constructive directions through appealing to their unique cultural identity to ensure stability, confidence, and a sense of belonging'.<sup>17</sup>

The diversity of Uganda's ethnic groupings has not only been a problem to its political situation, but has in some ways consequently affected the health of the people under the umbrella of 'culture and traditions'. What this meant was that each ethnic group, with its own culture that characterised and identified its members, under customary law, had the rights to practice certain cultural practices despite the negative consequences, and over which the state had little control. Some of these traditions were later labelled as fertile routes that aided the rapid spread of HIV/AIDS. For instance, the Banyankole engaged in sexual practices which allowed sexual relations to occur between married women and their brothers in law, in situations where their husbands were absent, dead, or impotent,<sup>18</sup> while in other ethnic groups male and female circumcision were practiced, and sexual intercourse used at initiation ceremonies, all practices that are seen to provide fertile routes for the spread of the infection. There are, however, other customs and practices that were favourable, which encouraged abstinence before marriage, as well as those that encouraged polygamous relationships that have to a large extent been eroded. Accordingly, this has resulted into premarital sexual relationships, as well as sexual relationships outside marriages, which have had far reaching effects in this HIV/AIDS era.<sup>19</sup>

One similar characteristic, however, is that at the centre of all these cultures is the family and kinship structures that continue to provide a framework for assistance and support for its members as well as instituting some customs to maintain cultural traditions.<sup>20</sup> Family in Uganda goes beyond husband, wife, and children to include members of the clan. In more recent times where society has been affected by the AIDS scourge, the family has continued to provide support to its members

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<sup>17</sup> See note 14, Sentenza-Kajubi, 'The historical background', 36.

<sup>18</sup> See James P.M. Ntonzi, *High fertility in Uganda, the role of social economic and biological factors*, Kampala: Fountain Publishers, 1995: 107.

<sup>19</sup> Yoweri, K. Museveni, *What is Africa's problem*, Kampala: NRM Publications, 1992: 273.

<sup>20</sup> See, Josephine Wanjia Harmsworth, 'The Ugandan family in transition', in *Beyond crisis: Developmental issues in Uganda*, eds. Paul B. Wiebe and Cole P. Dodge, Kansas: Multi-Business Press, 1987:91-100.



emotionally and economically. It has, however, been suggested that high inflation in Uganda and civil strife, have eroded traditional values and roles of the family. Families are now unable to support their members economically, especially since the cost of basic necessities and social services has dramatically increased, coupled with the loss of members that are economically productive, to AIDS.<sup>21</sup>

### South Africa

The present socio-cultural, economic, and political context in South Africa can be traced as far back as the seventeenth century (1652), with the arrival of English and Dutch colonialists. However, emphasis is often placed on the past 55 years that have been characterised by racial discrimination, mobile populations and break down of social structures.<sup>22</sup> With the legislation of pass laws and the exclusion of black people from certain areas, the apartheid system of governance was officially installed in place in about 1952. The black people were forced into crowded areas, impoverished homelands and this further led to the breakdown of traditional cultural structures and livelihoods.<sup>23</sup> A few relevant points are noted below. Male adults migrated to urban hostels and, by law, were prevented from bringing their families along. This, according to Whiteside and Barnett, created a culture of urban and rural wives and of sexual liaisons spanning the continuum from 'town life' to 'prostitute', which led to family break-ups.<sup>24</sup> Children were cared for by adults other than their parents, and this further aggravated the problem. Scholars that have taken interest in this aspect note that disruptions in the family culminating from the apartheid legacy have led to a notable increase in teenage pregnancy and loss of parental control.<sup>25</sup> Therefore, the

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<sup>21</sup> See Rekha Menon, Maria, J. Waver, Konde-lule, 'The economic impact of adult mortality in households in Rakai district Uganda' in in *Confronting AIDS, evidence from the developing world, selected background papers for the World Bank policy research report, confronting AIDS: public priorities in a global epidemic*, eds. Martha Ainsworth, Lieve Fransen, and Mead Over, Brussels: European commission, 1998:325-39.

<sup>22</sup> See note 9, Whiteside and Barnett, *AIDS in the twenty-first century*, 147.

<sup>23</sup> See note 9, Whiteside and Barnett, *AIDS in the twenty-first century*, 147.

<sup>24</sup> See note 9, Whiteside and Barnett, *AIDS in the twenty-first century*, 151. Also see C. Campbell, 'Migrancy, masculine identities and AIDS: The psychosocial context of HIV transmission in the South African gold mines', *Journal of Social Science and Medicine* 45 2 (1997): 273-281. Also see A.N. Dladla, C.A. Hiner, E. Qwana, and M. Lurie, 'Speaking to rural women: The sexual partnerships of rural South African women whose partners are migrants', *Society in Transition* 32 1 (2001): 78-83.

<sup>25</sup> A number of authors have commented on the above issue. See Preston-Whyte, 'Teenage pregnancy, whose problem? Realities and prospects for action in KwaZulu Natal', *South African Journal of Demography*, 3 (1990): 11-20. B.E. Bout, P.W. Cunningham, 'Black teenage pregnancy in Port Elizabeth', *Early Childhood Development and Care* 75 (1991): 51-70. M. Kau, 'Sexual behaviour and knowledge of adolescent males in Molopo region of Bophuthatswan', *Curations* 14 1 (1991): 37-40. Also see V.P. de Viller, 'Sex education in teenagers in Paarl', *South African Medical Journal* 5 80

disintegration of the family in South Africa, through migration and mobility have been part of the root cause of the patterns of sexual behaviour and sexual relations with non-regular partners, which is a perfect condition for the spread of HIV/AIDS. It is also such circumstances that have led to premature sexual experiences of young adults when they find themselves on the streets without any prospects of getting jobs. In some instances, they have engaged in sex with older men and women as a source of income.<sup>26</sup>

### *Economic Differences*

As highlighted earlier, socio-economic, political, and cultural factors are all inter-linked and a breakdown in one often affects the proper functioning of another. This can be observed from the economies of those countries that have had political problems.<sup>27</sup> Reviewing the socio-economic circumstances in the two countries, it becomes clear that in Uganda, economic development is comparatively low, characterised by agriculture as its major economic activity. The country is endowed with a few mineral resources and a few nature reserves that contribute to its Gross Domestic Product (GDP). Uganda's economy has been unstable and this is attributable to, and exacerbated by continued political insecurity. Because of the shattered economy, survival became the key issue and this became the root of what was called '*magendo*' which means a system of illicit, illegal distribution of goods. In this system, a number of black markets also emerged, and most of Ugandan produce was sold on black markets. This trade further involved long distance transportation of smuggled goods such as salt, sugar, paraffin coffee and gold out of the country for vehicle spares and other necessities into the country, as well as the distribution of food within the country.<sup>28</sup> In the process, this created a 'risk environment',<sup>29</sup> and, was

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(1991): 231-42. M.N. Schoeman, 'Sexuality education among black South African teenagers, what can reasonably be expected?' *Curations* 13 4 (1990): 13-8.

<sup>26</sup> See Abigail Harrison, Nonhlanla Xaba, Pinky Kunene, and Nelly Ntuli, 'Understanding young women's risk for HIV/AIDS: Adolescent sexuality and vulnerability in rural KwaZulu Natal', *Society in Transition* 31 1 (2001): 69-77. Also see Suzanne L. Madlala, 'Youth, HIV/AIDS and the importance of sexual culture context', *Social Dynamics* 28 1 (2002): 1-22.

<sup>27</sup> See World Bank *GNI per capita 2000, Atlas method and purchasing Power Parity*, [www.worldbank.org/data](http://www.worldbank.org/data) December 2000: Accessed November 2002. Such countries include Uganda, Democratic Republic of Congo, Rwanda, Burundi and many others.

<sup>28</sup> See note 9, Whiteside and Barnett, *AIDS in the twenty-first century*, 133.

<sup>29</sup> Risk environment in the sense of HIV/AIDS refers to those social, economic and political circumstances that permit frequent sexual exchange that facilitate rapid spread of the infection. For more clarification, see note 9, Whiteside and Barnett, *AIDS in the twenty-first century*, 80-1.



noted as a fertile infrastructure for the spread of HIV/AIDS.<sup>30</sup> The extent of the economic problem in Uganda is perhaps clearly illustrated by some socio-economic indicators. By 2000, the real GDP per capita was recorded at 300 US dollars,<sup>31</sup> adult literacy about 64%, and access to improved water in urban areas recorded at 60%, and 36% for rural areas. Health is a problem, for there are about 23,000 patients per doctor, and approximately 200,000 patients for one hospital.<sup>32</sup> (See table 2.1)

South Africa presents a different scenario compared to Uganda. The Gini-coefficient for South Africa is recorded at 0.58, and ranks the second highest after Brazil in the world, while Uganda's Gini coefficient stands at 0.383.<sup>33</sup> This means that the level of inequality in South Africa is notoriously high, leaning towards a situation of absolute inequality (1.00). Commenting on the above, Budlender indicates that South Africa is often cited as a middle-income country, but according to him, such ratings are based on aggregate value, such as per capita income, which conceals the fact that a very large number of people are living in extremely poor conditions, and a much smaller group of people extremely wealthy.<sup>34</sup> In relation to the above, Southall stresses the significance of the complex nature of the South African society with a mixture of culture and traditions as well as the co-existence of almost first and third worlds.<sup>35</sup> Because of these aspects, South Africa like any other country is still faced with part of the population that have had inadequate education, live in poor conditions, and are essentially powerless and helpless.

The table 2.1 below provides a summary of the indicators of both South Africa and Uganda and hence provides a brief picture on which socio-economic differences

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<sup>30</sup> See Vincent Joan, 'Living on the edge: Changing social structures in the context of AIDS', in *Changing Uganda*, eds. Holger Barnett and Micheal Twaddle, Kampala: Fountain Press, 1991: 116.

<sup>31</sup> Real GDP per capita is the gross domestic product converted to International Dollars using the purchasing power parity rates. GDP measures the total output of goods and services for final use occurring within the domestic territory of a given country regardless of the allocation of domestic and foreign claims.

<sup>32</sup> See, Canadian Institute for Health Information (CIHI), *Health statistics report*, [www.cihi.com](http://www.cihi.com). October 1999: Accessed March 2001. Some of the statistics indicated were obtained from the 1997 data and reported in 1999.

<sup>33</sup> See United Nations, *UN report on countries high on development*, [www.aegis.com/countries](http://www.aegis.com/countries), October 2002: Accessed December 2002. Also see Julian May, 'Poverty and inequality in South Africa', *Report prepared for the office of the Executive Deputy President and the Inter-Ministerial Committee for Poverty and Inequality: Summary Report*, [www.polity.org.za](http://www.polity.org.za), May, 1998: Accessed January 2003

<sup>34</sup> See Debbie Budlender, 'Patterns of poverty in South Africa', in *Development Southern Africa* 16 2 (1997): 197-220

<sup>35</sup> Hilary Southall, 'South African trends and projections', in *Facing up to AIDS: The socio-economic*



are illustrated.

Table 2.1: *Socio-economic indicators for Uganda and South Africa reported by World Bank, UNAIDS and Canadian Institute for Health Information (CIHI)*

Indicators	Uganda		South Africa	
	Value	Year	Value	Year
Real GDP per capita in International dollars, using PPP	1,210	2000	9,160	2000*
GNI per capita (US\$)	320	2000	3,170	2000**
Adult literacy rate	64%	1997	84%	1997***
Percentage of people in Urban areas	14%	2000	50%	2000**
Crude birth rate (Per 1000)	50	2000	27	2000**
Crude death rate (per 1000)	20	2000	11	2000**
Life expectancy at birth	42	2000	57	2000**
Public health expenditure as % of GDP	2%	1994	4%	1997***
Source: Reports from, *=The World Bank, **UNAIDS, and ***CIHI 'World development indicators,' from 1995-2000 <sup>36</sup>				

Such conditions need not be ignored when examining the emergence and progression of HIV/AIDS. Undoubtedly, discussions that have focused on the factors for the spread of HIV/AIDS have taken the above into consideration. For example, Southall observes that the social political and environmental conditions, to which the majority of the black South African population were subjected, were indeed those in which ill health and disease would bear fruit.<sup>37</sup> In addition, Webb commented in 1997, that conditions and macro processes, which operated to de-prioritise the epidemic at the institutional level, were still prevalent in post apartheid South Africa, such as migrant labour flows, poor health conditions, social instability and unemployment.<sup>38</sup> Although these are changing, their consequences are being observed today since these conditions have rendered those who are poor economically, dependant and vulnerable to infectious diseases.

Evidence to support the link between these factors as having created a risk

*impact in Southern Africa*, eds. Sholto Cross and Alan Whiteside, London: Macmillan Press, 1993:61.

<sup>36</sup> See World Bank, *GNI per capita 2000, Atlas method and purchasing Power Parity*, [www.worldbank.org/data](http://www.worldbank.org/data), December 2000: Accessed November 2002. Also see UNAIDS/WHO, *Epidemiological fact sheet on HIV/AIDS and sexually transmitted infections in Uganda and South Africa*, [www.unaids.org](http://www.unaids.org), December 2002: Accessed, November 2002. See note 32, CIHI, *Health statistics report*, 1999.

<sup>37</sup> See note 35, Southall, 'South African trends and projections', 69.

<sup>38</sup> See Douglas Webb, *HIV and AIDS in Africa*, London: Pluto Press, 1997:80.

environment for the spread of HIV/AIDS in the countries selected is examined. In Uganda, high prevalence of HIV and AIDS were observed along the major trade routes and trading centres that were often stop-off points for lorry drivers. Whiteside notes that survival strategies in times of hardships created demand for the provision of food, lodging facilities, and sex. In these circumstances, the 'magendo' economy led to the increase of prostitution and more casual sexual relationships were noted. Rakai district was one of the trading centres along the trade routes, and it was the first district in Uganda with a visible AIDS epidemic. In South Africa, Whiteside reports on a case study that began in 1997 based in Carletonville mining community. This study, longitudinal in nature and whose findings were reported in 2000, showed that the rate of infection among adolescent girls in the area was 60%. In addition, a large number of men in this community lived in hostels without their wives,<sup>39</sup> which is directly linked to migrant labour system and its implications discussed earlier. Further, literature shows that of the 1,833,636 migrant workers in South Africa, 1,062,239 came from KwaZulu Natal, Qwa Qwa, KwaNdebele, and KaNgwane.<sup>40</sup> It is also recorded that the early HIV prevalence was highest in these areas, and by 2001, KwaZulu Natal still recorded the highest prevalence of HIV in South Africa, (33.5%).<sup>41</sup> Research conducted in Hlabisa in northern KwaZulu Natal, shows similar trends in HIV prevalence. In this community, HIV prevalence in women attending antenatal care increased from 4.2% in 1992 to 25.9% in 1997. Most importantly, all HIV cases detected were found to be migrants or partners of migrants.<sup>42</sup>

In conclusion, the examination of the social, economic, and political background of Uganda and South Africa, with particular evidence from specific case studies, (Rakai and Carletonville, KwaZulu Natal) show some of the circumstances that have provided good grounds for the proliferation of the HIV and AIDS pandemic. It also, however, provides a brief understanding of the social, economic cultural and political status of the countries under analysis. The question this study explores is that while

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<sup>39</sup> See note 9, Whiteside and Barnett, *AIDS in the twenty-first century*, 155. Also see note 12, Karim, 'Current state, trends and the impact of the HIV/AIDS epidemic in South Africa', 15.

<sup>40</sup> See note 9, Whiteside and Barnett, *AIDS in the twenty-first century*, 151.

<sup>41</sup> See AIDS Foundation South Africa, *Summary report: National HIV and syphilis sero-prevalence survey of women attending public antenatal clinics in South Africa*, [www.aids.org.za](http://www.aids.org.za), November 2001: Accessed August 2002. Also see note 35, Southall, 'South African trends and projections', 67.

<sup>42</sup> Mark Lurie and Abigail Harrison, 'Circular migration and sexual networking in rural KwaZulu Natal: implications for the spread of HIV and other sexually transmitted diseases', *Health Transition Review*, sup.3 7 (1997): 17-27.

these factors above provide a relative explanation as to why HIV/AIDS spread in these countries, should this be the focus when designing prevention programmes? Assuming that solutions to economic and political problems were obtained, would that completely stop further spread? While this study acknowledges that such factors are important and should not be neglected, there are other factors (as discussed below) that should be examined and indeed integrated in prevention programmes, particularly in South Africa and Uganda, where the pandemic has grown very fast and has visible consequences. Let us examine these factors in detail.

### **THE UNFOLDING AND PROGRESSION OF HIV/AIDS IN UGANDA AND SOUTH AFRICA: BASIS FOR COMPARISON**

The examination of the unfolding and progression of HIV/AIDS in Uganda and South Africa, essentially provides evidence for the argument that self-perceived risk of HIV/AIDS is necessary for sexual behavioural change to occur; that in addition to the diverse impacts of the pandemic, educational responses, illness and death are partly the foundations from which adolescent sexual behavioural change should be examined and preventive programmes focused.

#### ***Unfolding of HIV/AIDS: Uganda and South Africa***

HIV and AIDS grew and thrived in risk environments presented earlier in the two countries. The situation in Uganda, however, shows that after the first clinical examination of the first cases, the years that followed were characterised by an increasing number of individuals that were infected with the virus. From 1982 when the first case was diagnosed, to 1988, over 7,000 people, both adults and children, were reported to have acquired the infection. This was an indication of how fast the disease was spreading in Uganda, and because of such rapid spread, estimates made at the time indicated that over 1.5 million people were already infected.<sup>43</sup> This rapid progression of the HIV virus continued to increase, and by 1992, the prevalence of HIV was recorded at 30% nationwide, and higher in some areas of the country.<sup>44</sup>

Examining the situation in South Africa, we see that despite the fact that the first clinical cases were diagnosed in 1982 as in Uganda, it was only around mid 1990's

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<sup>43</sup> See Uganda AIDS Control Programme (UACP), *AIDS surveillance report*, Entebbe: Ministry of Health, 1989-91.

<sup>44</sup> See note 43, UACP, *AIDS surveillance report*, 1988-91.



that more cases were reported. This, however, seems to reflect the fact that prior to 1994, the data that was obtained was not representative since it excluded homelands considered not to be part of South Africa during the Apartheid regime as Whiteside and Barnett indicate.<sup>45</sup> The pandemic has been on the increase since 1982, but because of reporting limitations provided above, and the limited movement of people due to provincial boundaries, it stands to reason why the sudden explosion in the prevalence, at the time when these barriers have been redrawn, and national samples collected. As in Uganda, the prevalence is primarily based on sentinel surveillance of antenatal clinic attendees, and by 2000, national HIV prevalence rate calculated from this group was recorded at 24.5%.<sup>46</sup> It is important to remind ourselves that the use of statistics obtained from antenatal clinics are faced with a number of criticisms and therefore problematic when estimating national prevalence.<sup>47</sup>

As highlighted earlier, due to prevailing circumstances, there is a visible disproportionate distribution of the prevalence of HIV/AIDS in some areas than others. In Uganda, shores of lake Victoria and Rakai district were hardest hit as well as some areas in Kampala. To illustrate this clearly, reports show that women attending antenatal clinics in Kampala, were noted with an increasingly rising infection, at a rate recording 11% in 1980's to 31% in the early 1990's.<sup>48</sup> The same is said for South Africa. Examining the prevalence of the pandemic among pregnant women in KwaZulu Natal, we note that by 1997, 27% of those attending antenatal clinics were estimated to be HIV positive and the prevalence further increased to 36.2% by the end of 2000.<sup>49</sup> Other areas include Free State with 27.9%, Mpumalanga 27.3%, and the other provinces below 25%.<sup>50</sup> While these statistics are often questioned and deemed not representative of all social groups in terms of ethnic and social class (middle and upper - class) representation, and are therefore not representative of national statistics, evidence can be obtained from the rising number of orphans whose parents have died of AIDS. For instance, an estimate of 666,000,

<sup>45</sup> See note 9, Whiteside and Barnett, *AIDS in the twenty-first century*, 117.

<sup>46</sup> See note 41, AIDS Foundation South Africa, *Summary report*, 2001.

<sup>47</sup> See note 35, Southall, 'South African trends and projections', 67-8.

<sup>48</sup> See NADIC, *The national strategic framework for HIV/AIDS in Uganda, 2000/1 to 2005/8: executive summary*, [www.aidsuganda.org/statistics](http://www.aidsuganda.org/statistics), October 2001: Accessed July 2002. See note 10, The U.S Bureau of Census, *HIV/AIDS in the Developing world*, 7.

<sup>49</sup> See note 4, UNAIDS/WHO, *AIDS epidemic update*, 2001. See note 41, AIDS Foundation South Africa, *Summary report*, 2001.

<sup>50</sup> See Alan Whiteside and Clem. Sunter, *AIDS 2000: The challenge for South Africa*, Cape Town:

and 880,000 orphans were recorded in South Africa and Uganda respectively in 2001 alone.<sup>51</sup> Further discussions around the same aspect present almost similar statistics. Exploring existing literature, Southall notes that in Durban, between 50 to 70% of the sexually active population would have been infected by 2000 due to the high estimated infection rates.<sup>52</sup> Today, the Department of Health (DoH) reports an estimate of 4.74 million people infected, the recent UNAIDS report estimates 5 million, and shows that that one in nine is infected.<sup>53</sup> In relation to this study, the aim of the section above was to highlight the variation in the prevalence of HIV in the two countries. In the sections that follow, trends, and impacts are examined.

### ***Reported Decline in the HIV Prevalence***

Reports show a decline in the prevalence of HIV in Uganda. According to the National Surveillance Framework (NSF) executive summary report of 2002, the prevalence of HIV had been declining significantly in Uganda since 1992. Measured primarily through antenatal attendees, HIV prevalence particularly in urban sites showed a remarkable decline. For example, a decline in prevalence rate of infection began to be noted among antenatal HIV prevalence reports in Kampala, dropping from 31% in 1994 to 14% in 1998. On the same note, HIV infection in rural areas fell from 13% to 8% in the same period.<sup>54</sup> These variations, according to NSF, were also visible in the different age groups as discussed in the previous chapter, with decline particularly pronounced among urban pregnant women, aged 15 to 19, followed by women aged 20 to 24. On a national level, decline is visible and the national surveillance report records the rate to have reduced from 18.5% in 1995 to 6.1% in 2000. *Figure 2.1* below illustrates clearly this information.<sup>55</sup>

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Human and Rousseau Tafelberg Ltd, 2000: 71.

<sup>51</sup> UNAIDS/WHO, *Assessment of epidemiological situation in Uganda, and South Africa*, [http://www.unaids.org/hivaidsinfo/statistics/june00/fact\\_sheets/pdfs/uganda.pdf](http://www.unaids.org/hivaidsinfo/statistics/june00/fact_sheets/pdfs/uganda.pdf) at 3; October 2000: Accessed May 2002.

<sup>52</sup> See note 35, Southall, 'South African trends and projections', 75.

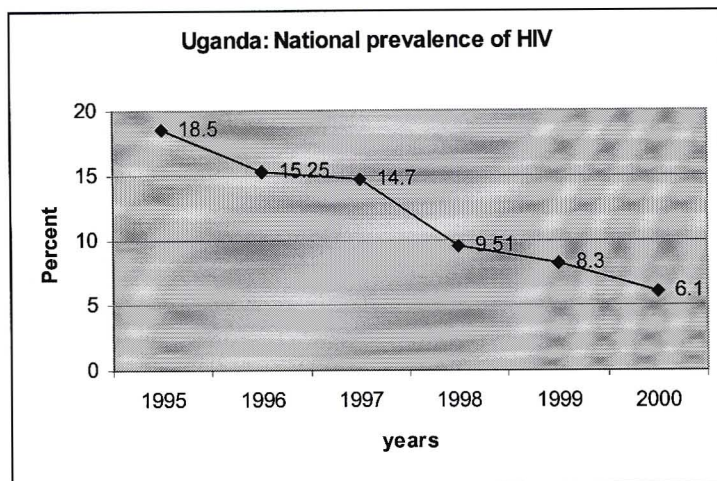
<sup>53</sup> See Averting HIV/AIDS Organisation, *HIV/AIDS statistics in South Africa*, <http://www.avert.org/safricastats.htm>, December 2002: Accessed January 2003. Also see note 4, UNAIDS/WHO, *AIDS epidemic update*, 2001.

<sup>54</sup> See note 10, The U.S Bureau of Census, *HIV/AIDS in the Developing world*, 7. Also see NADIC, *The HIV/AIDS epidemic, prevalence and impact: Situational analysis 2002*, [www.aidsuganda.org](http://www.aidsuganda.org), October 2002: Accessed November 2002. See note 48, NADIC, *Executive summary*, 2001.

<sup>55</sup> See note 54, NADIC, *Situational analysis 2002*, 2002.



**Figure 2.1: A presentation of the national prevalence of HIV in Uganda**



Source: Situational analysis 2002, [www.aidsuganda.org](http://www.aidsuganda.org)

According to UNAIDS recent estimates, only 600,000 persons, both adults and children, in Uganda are at present estimated to be infected with the virus.<sup>56</sup> A number of studies have identified Uganda as a success story alongside Zambia. The question one asks is why the decline? There are many reasons that have been attributed to the decline in the prevalence of HIV in Uganda such as government response, disclosure, and the use of a multi-sectorial approach in dealing with the problem. This study constructs a hypothesis that the effects of HIV/AIDS on young adults are responsible for sexual behavioural change. Given the fact that the spread of HIV in the two countries is largely heterosexual, sexual behavioural change is therefore linked to reduced HIV prevalence.<sup>57</sup>

There has not been any visible decline regarding HIV prevalence in South Africa. Rather what is presented is a continuous increase in the prevalence. The graph below presents national prevalence obtained from women attending antenatal clinics. By 2000, the prevalence was as high as 24.5%. This is presented in figure 2.2 below.<sup>58</sup>

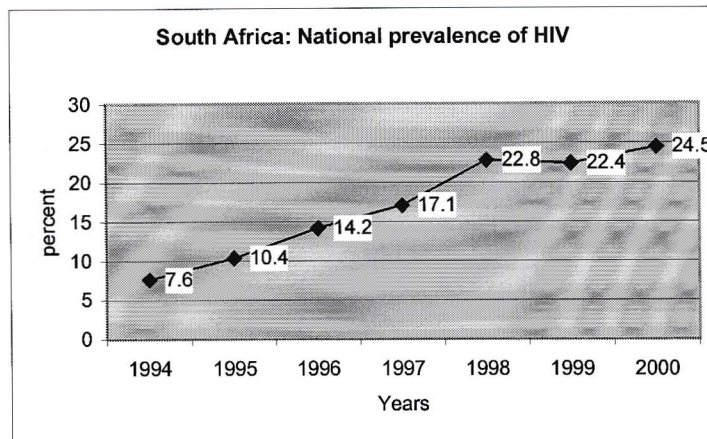
<sup>56</sup> UNAIDS/WHO, *Assessment of epidemiological situation in Uganda*, [http://www.unaids.org/hivaidsinfo/statistics/june00/fact\\_sheets/pdfs/uganda.pdf](http://www.unaids.org/hivaidsinfo/statistics/june00/fact_sheets/pdfs/uganda.pdf), December 2000: Accessed on May 2002. Also see note 10, The U.S Bureau of Census, *HIV/AIDS in the Developing world*, 15. Also see note 4, UNAIDS/WHO, *AIDS epidemic update*, December 2001.

<sup>57</sup> See Albert H.D. Kilian and Simon Gregson, 'Reductions in risk behaviour provide the most consistent explanation for declining HIV-1 prevalence in Uganda', *AIDS* 13 (1999): 391-398. Also see Anatoli Kamali and Lucy Mary Carpenter, 'Seven-year trend in HIV-1 infection rates, and changes in sexual behaviour, among adults in rural Uganda', *AIDS*, 14 (2000): 427-434.

<sup>58</sup> See note 9, Whiteside and Barnett, *AIDS in the twenty-first century*, 118.



**Figure 2.2: A presentation of the national prevalence of HIV in South Africa**



Source: Whiteside and Barnett, 'AIDS in the Twenty-First Century', 2002:118.

As in Uganda, the same question is raised, why the continued increase? This shall be explored in the later sections. What is clearly noted at this point is, again, the difference in the numbers of those infected over a period of time in the two countries. The above graphs also demonstrate clearly the difference, first of all, in the manner in which the pandemic progressed in the two countries and, secondly, the variations as noted in the current status of the pandemic. What appears similar however is that both countries have been faced with substantial numbers of people infected with the disease. The relevance of presenting data on decline in the two countries is to build the case towards the importance of self-perceived risk of HIV/AIDS as a necessary factor for sexual behavioural change.

### **AIDS Cases**

As HIV prevalence levels decline, the number of reported AIDS cases continue to rise.<sup>59</sup> By the end of 2000 a cumulative total of 58,165 AIDS cases (Adults and children) had been reported to the Ugandan Ministry of Health AIDS Control Programme surveillance units, a total that was 2,303 AIDS cases more than those reported in the previous year. Of these cases, 53,879 (92.6%) were adults and 4,286 (7.4%) were children of 12 years and below. Of the total, 24,199 cases (45.7%) were males and 28,787 (54.3%) were females.<sup>60</sup> However, one, has to carefully interpret such statistics since these are only 'known cases' obtained mainly from hospital-

<sup>59</sup> See NADIC, *The HIV/AIDS epidemic: Facts and figures*, [www.aidsuganda.org](http://www.aidsuganda.org), October 2002: Assessed November 2002. Also see note 9, Whiteside and Barnett, *AIDS in the twenty-first century*, 115.

<sup>60</sup> See note 55, NADIC, *Situational analysis 2002*, 3.

patient records, organisations such as The AIDS Support Organisation (TASO), and other AIDS support groups and may therefore under represent the situation.

There is no comparative data of AIDS cases in South Africa. Whiteside and Barnett report that such data has not been collected.<sup>61</sup> In fact, most literature in South Africa does not report it or if they do, they have no current data.<sup>62</sup> In this study, it is argued that this data is important since it provides the foundations for policy implementation as well as preventive programmes that consider the impact of self-perceived risk of HIV/AIDS, from experiences of those that have faced the illnesses and death of friends and family. Although the dynamics around this are intricate and include constant denial of the existence of the disease, such an aspect should be taken into account.

The HIV/AIDS epidemic has affected all demographic structures in both Uganda and South Africa. However, attention is given to the young adults as a category of focal interest. As noted in the previous chapter, the higher the incidence and prevalence in a country, the higher the chances the young adults have of acquiring the infection. In South Africa, reports show that 60% of new infections are in fact occurring among people aged 15 to 25 years old.<sup>63</sup> In Uganda, reports show that the youth 25 years and below comprise 50% of all those infected with HIV. Among the impacts of HIV/AIDS yet to be observed, is the change in the demographic structure of the population taking into account the rate that it has been spreading unless something is done to prevent further spread.<sup>64</sup>

#### CONSEQUENCES OF HIV/AIDS AND THE ADVERSE EFFECTS ON YOUNG ADULTS

In this section, focus shifts towards providing a hypothetical answer as to why there has been a decline in HIV prevalence levels in Uganda and continued increase in South Africa. To begin with, the situation illustrated above has had consequences of

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<sup>61</sup> See note 9, Whiteside and Barnett, *AIDS in the twenty-first century*, 115-6, 117.

<sup>62</sup> See note 35, Southall, 'South African trends and projections', 1993: 64. Also see Whiteside and Sunter, *AIDS 2000*, 47.

<sup>63</sup> See John Stephenson, *AIDS in South Africa takes a centre stage*, <http://jama.ama-assn.org/issues/July2000>: Accessed July 2002.

<sup>64</sup> See Liz Walker and Gilbert Leah, 'Women pay the price: HIV/AIDS and social inequalities', *South African Labour Bulletin* 25 1(2001): 76-83. Also see note 7, Caldwell, 'The impact of the African AIDS epidemic', 179. See NADIC, *Scaling up the HIV/AIDS orphans*, [www.aidsuganda.org/national\\_updates](http://www.aidsuganda.org/national_updates), October 2002, Accessed November 2002. Also see P. Sidly,

vast proportions. It has affected the economy, disrupted the family structure and constrained household resources.<sup>65</sup> It has exerted pressure on the health services and other facilities. But as Whiteside notes, the pandemic may have had one positive impact; - it has brought about 'common consciousness' whereby people are coming together to find solutions to a common problem.<sup>66</sup> However, two aspects, fundamental to this study, are discussed. The first involves the examination of mortality due to AIDS, looking at the likely impact of mortality on sexual behaviour. The second looks at the responses of various governments and other non-governmental organisations in terms of creating a sense of awareness among individuals. The argument raised suggests that these are key factors in determining self-perceived risk of HIV/AIDS. Let us examine each below.

### ***Impact of AIDS-related Mortality***

The impact of deaths due to HIV/AIDS has attracted attention of scholars in recent times. The focus of attention has ranged from change in demographic structure of societies highly affected by the epidemic, to households and families, to communities and health structures, to reduced life expectancies, education, and many other issues.<sup>67</sup> Surprisingly, very little attention has addressed the impact AIDS mortality has on self-perceived risk of HIV.<sup>68</sup> This is explored below in the context of Uganda and South Africa and with reference to particular areas within these countries.

Over the last seven years, AIDS has been the leading cause of death in Uganda taking over from malaria. Surveillance reports indicate that AIDS is responsible for 12% of all deaths in Uganda every year, and is estimated to have killed over 1.8 million people since 1982.<sup>69</sup> Evidence to show that AIDS is increasing the death rate can be obtained from specific areas. In a study conducted in Rakai district among community members aged between 15 to 50 years, with a sample of 1,945 households, and an 86% response rate, 591 (35.5%) deaths were recorded between

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'South Africa steps up fight against HIV/AIDS', *British Medical Journal* 11 (1995): 626-45.

<sup>65</sup> See note 21, Menon, Waver and Konde-lule, 'The economic impact of adult mortality on households in Rakai district' 325-39.

<sup>66</sup> See note 9, Whiteside and Barnett, *AIDS in the twenty-first century*, 4.

<sup>67</sup> See note 9, Whiteside and Barnett, *AIDS in the twenty-first century*, 159-241. Also see note 21, Menon, Waver and Konde-lule, 'The economic impact of adult mortality on households in Rakai district' 325-39.

See M. Schonteich, 'Communicating beyond AIDS', *AIDS Analysis Africa* 10 1 (1999): 2-12.

<sup>68</sup> See C.A. Varga, 'Sexual decision-making and negotiation in the midst of AIDS: youth in KwaZulu Natal, South Africa', *Health Transition Review*, Sup. 3 7 (1997): 45-67.



1989-92, of which 199 (34%) died of AIDS related illnesses.<sup>70</sup> A more recent study in the same area shows that mortality is higher among persons who are HIV positive (132.6 per 1000 person years) compared to HIV negative persons (6.7).<sup>71</sup> Estimates show that by 2010, there will be 4.2 million fewer people than there would have been without AIDS.<sup>72</sup>

On the same note, deaths due to AIDS in South Africa have begun to unfold. Earlier reports showed that about 53500 deaths were expected to occur by the end of 2000.<sup>73</sup> New evidence clearly outlines deaths among the South African population that are HIV/AIDS related. What is indicated is that over the years, deaths due to AIDS have been increasing. The recent report shows that 40% of all deaths in South Africa in 2000 were in fact AIDS related.<sup>74</sup> This is very high and such high figures ought to have a considerable impact on society. According to the Medical Research 2002 AIDS indicators, an estimated 688,428 deaths have already occurred since the first clinical AIDS cases were diagnosed in South Africa.<sup>75</sup>

Presenting figures alone may not particularly mean anything, but the interpretation of these figures provides a better understanding of the study. If we look at the figures more closely, we clearly see that a large proportion of people in Uganda have gradually died off. This means that a considerable proportion of the population in Uganda have directly and personally experienced deaths due to AIDS. Because of such experiences, it is assumed that people's attitudes towards engaging in behaviour that may put them at risk of acquiring HIV/AIDS are likely to change, hence part of the explanation for reduced HIV prevalence in Uganda.<sup>76</sup> On the other hand, what is

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<sup>69</sup> See note 9, Whiteside and Barnett, *AIDS in the twenty-first century*, 159-241.

<sup>70</sup> See note 21, Menon, Waver and Konde-lule, 'The economic impact of adult mortality on households in Rakai district' 325-39.

<sup>71</sup> See note 9, Whiteside and Barnett, *AIDS in the twenty-first century*, 170.

<sup>72</sup> See note 10, The U.S Bureau of Census, *HIV/AIDS in the Developing world*, 14.

<sup>73</sup> See note 53, Whiteside and Sunter, *AIDS 2000*, 71.

<sup>74</sup> See R.E. Dorrington, D. Bourne, and D. Bradshaw, 'The impact of HIV/AIDS on adult mortality in South Africa', *South African Medical Research Council Technical Report*, South Africa: Medical Research Council, 2001: 7.

<sup>75</sup> See R.E. Dorrington, D. Bradshaw and D. Budlender, *HIV/AIDS profile of the provinces of South Africa –indicators for 2002*, South Africa: Centre for Actuarial Research, Medical Research Council and the Actuarial Society of South Africa, 2002: 28.

<sup>76</sup> See P.M. James and Fred E. Ahimbisibwe, 'Some factors in the decline of AIDS in Uganda', in. *Resistance to Behavioural Change to Reduce HIV/AIDS infection in predominantly heterosexual Epidemics in third world countries*, eds. J. Caldwell, Pat Caldwell, John Anarfi, Kofi Awusabo-Asare, James Ntozi and I.O. Orubuloye, Australia: Health transition centre and National centre for epidemiology, 1999:93-107.

reported on mortality in South Africa shows that mortality has only begun to unfold and, therefore, its impact has not been felt as much as in Uganda. One can, with caution, say that South Africa is beginning to experience some of the effects of the epidemic in its middle stages and, therefore, reduction in prevalence is not visible as yet. This is not to suggest that there are no other factors in the equation. This is explored in chapters five and six.

### ***Awareness programmes and responses towards eradicating further spread of the infection***

The high prevalence of HIV/AIDS and the resulting mortality and other AIDS related consequences have meant that the public has to be educated to prevent further spread. While the Ugandan government was the first to label and point out the seriousness of the disease, which essentially provided an open door to interest groups particularly non-governmental organisations, the impetus to prevent further spread by the people themselves was often derived from increased AIDS related mortality within communities. Furthermore, warnings to young people were often passed at funerals and these ultimately sparked off talks among family and friends, hence increasing awareness and self-perceived risk of HIV/AIDS.

Still in Uganda, information campaigns were employed at an early stage, and a multi-sectorial approach was employed. It is indicated that over 1,020 agencies emerged to deal with the challenges of the pandemic. Among them, 33% were local government, 15.3% Community Based Organizations (CBOs), UN system 9.4%, NGOs 7.9% and the central government 7.3%.<sup>77</sup> In relation to the efforts set up to monitor the problem, the AIDS control programme and the AIDS commission were established. The main goal was to educate the public about HIV/AIDS, although the target was towards the young. By 1990, 60% of the population had been reached by the HIV/AIDS messages, although not much sexual behaviour change had been noticed.

The situation in South Africa was different. Whiteside and Barnett indicate that while 90% of Ugandans were having these discussions, less than 35% of South

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<sup>77</sup> See NADIC, *Uganda Aids Control Programme report*, [www.aidsuganda.org](http://www.aidsuganda.org), October 2001: Accessed July 2002.

Africans were.<sup>78</sup> Perhaps what this indicates is that response to the issue was inadequate. However, the current government has not been entirely supportive of the issues at hand, which is a problem to prevention programmes that are in place to prevent the spread of HIV/AIDS. Lack of government support is also evident in the failure to provide treatment and care to those infected. This position of the government comes at a time when international communities are calling for anti-retroviral drugs to be made affordable to the developing world as it could reduce mother to child transmission and further delay the onset of full-blown AIDS.<sup>79</sup> While the South African government's commitment to the AIDS problem is still very unclear, the models projecting the future size of the epidemic suggest that the epidemic will reach 25% by 2010. Of recent, however, there has been a sudden increase in AIDS related talks, on television, radio, concerts and drama series. This is not a coincidence but rather as a result of increased HIV prevalence in the country. From the above, we note that there are differences in terms of response to the pandemic in the two countries, but continue to suggest, that the impact of AIDS alone will be the foundation on which increased response is based. The above also points to the fact that the visible progression in Uganda, was the reason why HIV/AIDS received the response it did, and while there may be other factors that hindered quick response in South Africa, its slow progression in the early 1980's and 1990's did not help the situation.

## CONCLUSION

This chapter sets the scene on which this study is based and understood. It has explored the unfolding and progression of HIV/AIDS in Uganda and South Africa, and presents the circumstances or risk environments in which the HIV grew and thrived. Most importantly, this chapter presents the argument that with current statistics of HIV/AIDS, along with increased mortality, it is hypothesised that these will increase adoption of safer sex practices and ultimately lead to reduced levels in the prevalence. This is explored in the next chapters.

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<sup>78</sup> See note 9, Whiteside and Barnett, *AIDS in the twenty-first century*, 320.

<sup>79</sup> See 'Mbeki's AIDS policy', in *The Mercury*, September, 19<sup>th</sup> 2000. See 'AIDS and President saga ends' in *Mail and Guardian*, January, 19<sup>th</sup> 2001. See 'Mbeki controversy over HIV/AIDS confusing' in *New York Review*, November, 16<sup>th</sup> 2000. Also see 'South Africa in denial', in *Daily News*, September, 19<sup>th</sup> 2000.



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## CHAPTER THREE

### SEXUAL BEHAVIOURAL CHANGE: A PREVENTATIVE MEASURE FOR HIV/AIDS

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#### INTRODUCTION

Although there has been considerable literature pertaining to the question of HIV/AIDS and sexual behaviour, it appears that attention has been focused on well-documented areas, particularly those that examine the extent to which broader structures have influence.<sup>1</sup> The question of the impact that self-perceived risk of HIV/AIDS has on one's sexual behaviour does not seem to be well documented. What is in fact presented is in a piecemeal fashion and does not clearly address the question. Based on the discussion in the previous chapter, together with the review of existing literature, this chapter aims to provide an argument on which HIV risk perception can begin to be understood as a likely determinant of sexual behaviour. The discussion below is structured in a manner that examines, firstly, theoretical positions of behavioural change in general. Secondly, a discussion on sexual behavioural change and what it entails are presented, including theories employed in understanding this aspect. Thirdly, since the study focuses on young adults, sexual behavioural change in this group is discussed, with a conceptual framework illustrating the likely factors and how these interdependently function as likely determinants of sexual behavioural change.

**KEYWORDS:** Behavioural change and sexual behavioural change, behaviourists, phenomenological and humanistic approaches, social learning theory, self-perceived risk of HIV/AIDS and other societal determinants of sexual behavioural change

#### BEHAVIOURAL CHANGE: THEORETICAL POSITIONS

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<sup>1</sup> See C.J. Caldwell, 'Reasons for limited behavioural change in Sub-Saharan African AIDS epidemic, and possible future intervention strategies', in *Resistance to Behavioural Change to Reduce HIV/AIDS infection in predominantly heterosexual epidemics in third world countries*, eds. C.J. Caldwell, Pat Caldwell, John Anarfi, Kofi Awusabo-Asare, James Ntozi and I.O. Orubuloye, Australia: Health transition centre and National centre for epidemiological, 1999:241-256. Douglas Webb, *HIV and AIDS in Africa*, London: Pluto Press, 1997: 115-157. Also see Kofi Awusabo-Asare, 'Obstacles and challenges to sexual behaviour change', in *Resistance to Behavioural Change to Reduce HIV/AIDS infection in predominantly heterosexual epidemics in third world countries*, eds. C.J. Caldwell, Pat Caldwell, John Anarfi, Kofi Awusabo-Asare, James Ntozi, I.O. Orubuloye, Australia: Health transition centre and National centre for epidemiological, 1999: 235-240.

Behaviour and behavioural change are complex to understand. These concepts involve dealing with aspects of an individual, including how the individual internalises certain issues in order to change their behaviour. Furthermore, the process of behaviour change is inadvertently influenced by aggregate forces, which include *inter-alia*, social, economic and political variables. There are a number of schools of thought that have focused on understanding behaviour. In broad categories, these are: - the *behaviourists*, *humanistic*, and *phenomenology theorists*. Briefly, behaviourists advance the view that human behaviour can be understood through careful observation of behaviour, the environment, and their relations. They emphasize that external events are important determinants of forming one's behaviour and so stress aspects such as beliefs, perceptions and feelings.<sup>2</sup> This school of thought also suggests that behaviour is predictable and that the way to study it is to use natural laws or positivistic methods. (Experiments and quantitative methods) This has recently become the basis on which they are criticised.

On the other hand, the humanistic theorists employ some of the aspects recognized by the phenomenologists and are highly influenced by this school. They hold the view that while there may be an objective reality, the reality of phenomena to the individual lies in the way the phenomena are perceived. In addition, that people are largely responsible for their own actions. These approaches further add that although human beings respond naturally to events in the environment or are motivated by unconscious impulses, they have the ultimate power to determine their own destiny and decide their actions at any given moment.<sup>3</sup> However, one needs to emphasise the fact that these approaches to behaviour do overlap and therefore have some aspects that are similar.

Despite the similarities between these schools of thought, they also portray some differences in explaining behaviour. The focus on an individual's *will power* to change behaviour, which is the central tenet of the humanistic and phenomenologist approaches, without indicating any '*operant*' force that maintains such *will power* according to this dissertation becomes a limitation to these approaches. Thus this

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<sup>2</sup> See E.J. Chapman and H. Harry Chapman, *Behaviour and health care: A humanistic helping process*, USA: The C.V Mosby Company, 1932:12. Also see Albert Bandura, *Social foundations of thought and action: a social cognitive theory*, Englewood Cliffs, N. J: Prentice Hall, 1986.

<sup>3</sup> See note 2, Chapman and Chapman, *Behaviour and health care*, 11-13.

study leans more to those approaches which take into account the importance of an individual's will power, but also take into account the importance of an *operant force* that is said to maintain one's will power. Such theory is the *social learning theory*. Developed by B. F. Skinner, this theory suggests that '*behaviour is shaped and maintained by its consequences*'.<sup>4</sup> Skinner further suggests that consequences of a particular activity, that subsequently increases the rate at which that activity is responded to are labelled *positive reinforcers* while those that decrease the rate, are *negative reinforcers*. This means that an individual often comes to control part of their behaviour when a response has conflicting consequences-when it leads to both positive and negative reinforcements.<sup>5</sup>

Skinner provides an example in which he looks at the determinants of drinking behaviour. In the author's argument, drinking alcohol can be maintained, if an individual is obtaining positive *reinforcers* such as the unusual confidence that an individual acquires and uses as a successful tool in a social gathering, and in which one forgets responsibilities and troubles. However, where other consequences such as hang overs, and the disastrous effects of overconfidence or irresponsible behaviour, which are negatively reinforcing are encountered, the individual may reverse their behaviour or reduce its practice to a minimal level.<sup>6</sup> While the above clearly explains why and how those engaging in a particular behaviour, and, are experiencing the consequences of that particular behaviour, such as drinking can easily change their behaviour, it does not clearly stipulate how those that are not having direct consequences can actually change their behaviour.

To solve the problem, Bandura suggests that one's behaviour may change as a result of observing the behaviour of those around one.<sup>7</sup> In other words, their behaviour can also change by observing the behavioural consequences of those around them as shall be explored below. Skinner considered, however, that this process is not linear, that there are other factors which may affect individuals' ability to change behaviour and that from a pool of factors, one has to consider those factors with the greatest

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<sup>4</sup> See The American Sociological Association (ASA), 'Theoretical perspectives: Social learning theory', in *Society today*, ed. Cynthia Farden, Del Mar California: CRM Books, 1973:66-67.

<sup>5</sup> See Burrhus F. Skinner, the 'Self Determination' of conduct', in *Behaviour change through self-control*, ed. Marvin R. Goldfield, New York: Stony Brook, 1972: 60. Also see note 4, ASA, 'Social learning theory', 66.

<sup>6</sup> See note 5, Skinner, 'Self determination of conduct', 60.

<sup>7</sup> A. Bandura, *Social Learning Theory*, Englewood Cliffs, N.J: Prentice Hall, 1977.



impact on any problem under investigation.<sup>8</sup> The use of such an epistemic view is employed in this study that seeks to measure the strength of self-perceived risk of HIV/AIDS as an explanatory variable for sexual behavioural decisions, and through which its strength can only be examined in relation to other variables. As already highlighted, this provides for the ability to compare the different factors as well as examining the link obtained from the different factors.

### ***Evidence of Use of the Social Learning Theory***

Behaviour and behavioural change have been studied in various respects. In particular, drinking behaviour, drug and smoking behaviour, and the reasons for change. The kind of studies that have dealt with such issues have had to identify the different levels of the problem, whether it is at moderate, or addiction level, and this has meant use of different approaches to understand such behaviour.<sup>9</sup> Certainly, theorists such as Skinner were more concerned with behaviour in moderate levels, where the individual has the ability to deal with the prevailing behaviour having noted their consequences. The main focus for this study is sexual behaviour, and while there could be common threads that can be observed from those studies understanding drug and smoking behaviour as mentioned above, it becomes superficial to employ their positions unless one can actually classify sexual behaviour as an addictive behaviour, which it is not. For this reason, Skinner's theory becomes of value as it attempts to explain behaviour in moderate levels.

### ***SEXUAL BEHAVIOURAL CHANGE: Application of the Social Learning Theory for Prevention of HIV/AIDS***

The dramatic evolvement of HIV/AIDS has been noted with increase in debates regarding sexual behaviour, as well as sexual behavioural theories. Behaviour, in particular sexual behavioural change, has become an issue of focal interest. It is also almost universally accepted as the only weapon available as a preventative measure for HIV/AIDS. Among the known sexual behavioural change practices are: Use of condoms, limiting the numbers of sexual partners, and abstinence. As already mentioned, only 'condom use' and 'limiting number of sexual partners', are considered in this study since the efficacy of call for abstinence as a safer sex practice

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<sup>8</sup> See note 4, ASA, 'Social learning theory', 67.

<sup>9</sup> See Sarah Webb, *Alcoholism or problem drinking*, [www.alcoholconcern.org.uk/information/factsheet1](http://www.alcoholconcern.org.uk/information/factsheet1), May 2001: Accessed November 2002. See *Moderate drinking behaviour*, [www.mylifeboat.com](http://www.mylifeboat.com), March

is highly questionable in the modern world.

The concern over the HIV/AIDS epidemic in the world generally and in South Africa and Uganda in particular, stems primarily from its unique features. First, it is one of the current epidemics whose principal route of transmission is through sexual contact (both heterosexual and homosexual). Owing to this feature, it mainly affects the sexually active population and sexual activity is the main defining risk factor for the variation of its incidence and prevalence according to sex, geographical location, culture, and socio-economic status. Another notable aspect of this epidemic is that those infected often remain asymptomatic for a long period before they develop full-blown AIDS; meanwhile they can infect others and re-infect themselves. In essence, it becomes a trade-off between giving up sexual gratification or adopting safer sex practices and risking losing one's life through indulging in unprotected sexual relations, particularly in countries where HIV prevalence is high and therefore chances of acquiring the infection also high. The question one asks is whether young adults can actually give up sexual relations for the safety of their lives?

A number of theories have recently emerged that are specifically designed to understand sexual behavioural change as a preventive measure for HIV/AIDS. These are divided into two broad categories; *individual models*, which include the Health Belief Model,<sup>10</sup> the Theory of Reasoned Action,<sup>11</sup> and Social Cognitive (learning) theory.<sup>12</sup> The second category includes all *social structural and environmental theories*, and these are; the Diffusion theory, Social Network, Gender and Empowerment, and, Social Ecology theories. Most of these social structural and environmental models have increasingly surfaced in behavioural change literature, in counter-reaction to the limitations placed on individual models, which suggest that these models place their confidence in the decision-making ability of the individual relying on the assumption that correct information on transmission and prevention measures will lead to behaviour change.<sup>13</sup> In addition, it has been noted that these

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2000: Accessed July 2002.

<sup>10</sup> See M.H. Becker, 'The Health Belief Model and personal health behaviour', *Health Education Monographs* 2 4 (1974): 14-21.

<sup>11</sup> See I.M. Ajzen and Fishbein, *Understanding attitudes and predicting social behaviour*, Englewood Cliffs, N.J: Prentice Hall 1980.

<sup>12</sup> See note 7, Bandura, *Social Learning Theory*, 1977.

<sup>13</sup> See P. Maharaj and Jonathan D. Tilotson, 'Barriers to HIV/AIDS protective behaviour among African adolescent males in township secondary schools in Durban South Africa', *Society in Transition* 32 1 (2001): 83-96.

individual models do not apply in developing countries, particularly those countries where considerable proportions of the population live under very poor socio-economic conditions and where cultural traditions are prevalent, contexts in which risk-taking behaviour is said to prevail.<sup>14</sup>

While these limitations are acknowledged, it is also true that these models were used at a time perhaps inappropriate for people to actually understand such information without any visible evidence to relate to. Without any visible force to compel them to change their behaviour, it is argued in this study that preventive information along with increased experiences of deaths due to AIDS make it worthwhile to consider these models once more.

In the quest to understand sexual behaviour, therefore, this study employs the *social learning theory* advanced by B.F Skinner and Bandura, and recently modified as a theory to understand sexual behavioural change. The use of this particular theory follows an argument that, perceived risk of HIV/AIDS is a likely factor determining sexual behavioural change. But how does perceived risk of HIV/AIDS come about? If individuals have been practicing a certain behaviour, which they learn is threatening to their lives or those surrounding them, and know of the ways to prevent it, these individuals are likely to change their behaviour.

However, having information as shown above is not enough, but rather, personal experiences of increased deaths of friends, relatives, and community members observed over time are plausible explanations of increase in perceived risk of HIV infection. The simple illustration would refer to Skinner's theoretical foundations, which analysed the factors that influenced peoples' ability to change their behaviour and in which he concluded that people engage in a behaviour depending on how *rewarding and satisfying* the activity is.<sup>15</sup> In this case, however, even though there are rewards, such as saving one's life, they are subtle and are not easily recognised. However, the impetus for change in this case would not depend on how rewarding and satisfying their participation in an action is, not at least in the short run but rather on how they perceive the severity of the outcome. That their willingness to stop engaging in risky sexual behaviour would have to be deeply influenced by something they

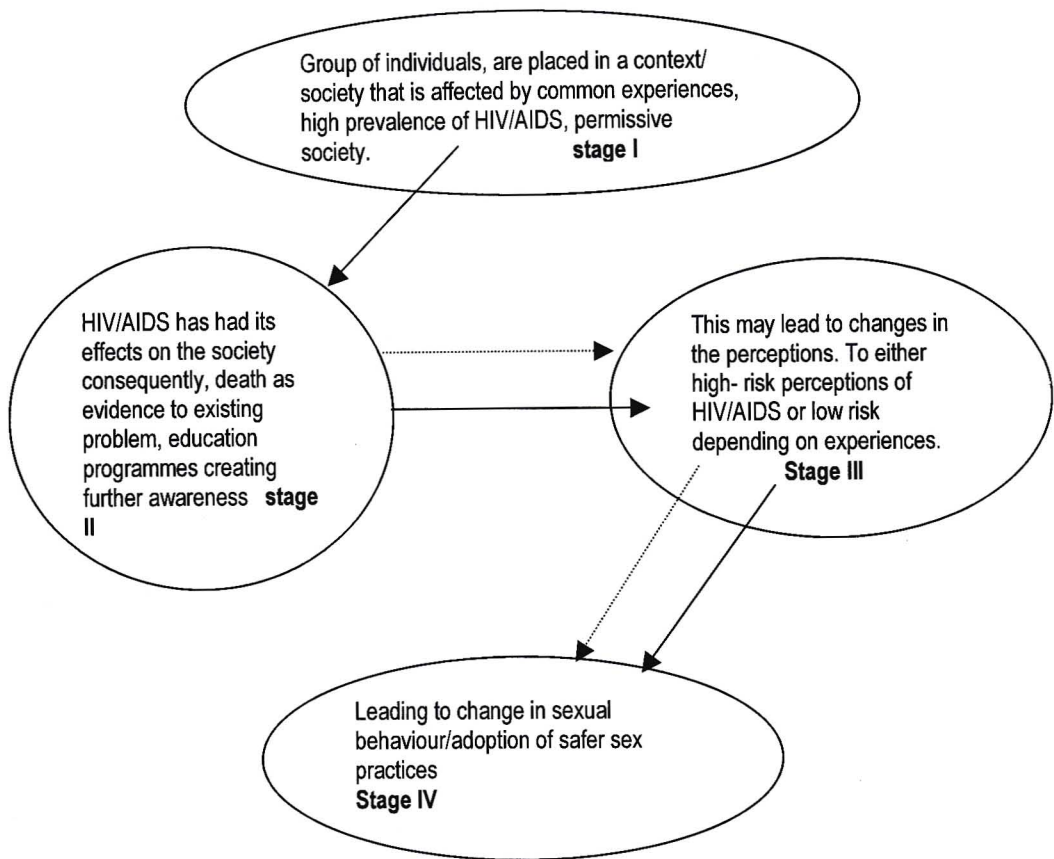
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<sup>14</sup> See J. Auerbach, C. Wypijewska and K. Brodil, *AIDS and behaviour: An Integrated approach*. Washington, DC: National Academy Press, 1994.



perceive and identify as fatal. This is illustrated in the figure below.

**Fig 3.1: An illustration of the application of Skinner and Bandura’s social learning theory in a sexual behavioural context for this study**



The conceptualisation above illustrates or models some scenarios that are faced today and how they may have profound effects on individuals. Stage one illustrates groups of individuals located in a society or societies that are faced with common experiences, where HIV prevalence is high, sexual activity is high, as can be noted from increasingly rising adolescent pregnancy, and high STI rates.<sup>15</sup> Far more evident are the rising HIV/AIDS prevalence and more recently morbidity and mortality. In some parts (see chapter two), the morbidity and mortality rates are staggering and frightening to the extent that funerals have become almost a daily activity for some

<sup>15</sup> See note 4, ASA, ‘Social learning theory’, 66-67.

<sup>16</sup> See World Health Organisation (WHO), *Health systems- improving performance. The world health report*, Geneva: WHO, 1995. Also see WHO, *1992-1993 progress report: Global Aids programme*, Geneva: WHO, 1995.

communities. As a consequence, more education programmes and awareness campaigns are being designed and redesigned to combat further spread. This is presented in stage two. It is assumed that such dynamics will indeed have profound effects on individuals and society in various respects, which include increased level of perceived risk of HIV as illustrated in stage three. This will ultimately mean that individuals will change their behaviour to prevent further spread of the epidemic disease, thereby adopting safer sex practices (Stage four). In essence, change in behaviour depends on the level of self-perceived risk of HIV/AIDS. However, one has to consider that an individual is located in society and, sometimes, societal factors do facilitate or impede the rate of change and are at times interlinked as indicated by dotted lines as presented in figure 3.1 above.

Recently, the social learning theory has become part of the theories of sexual behavioural change and the arguments still remain as stated by the founders: that new behaviours are learned either by modelling the behaviour of others or by direct experience. The central tenets of the social learning theory are: *self-efficacy* – the belief in the ability to implement the necessary behaviour (“I know I can insist on condom use with my partner”) *outcome expectancies* - beliefs about outcomes such as using condoms correctly will prevent HIV infection. In addition, they include some of the important considerations such as being aware of the preventative measures, (information) and attitudinal change, which enhance motivation and reinforcement of risk reduction skills.<sup>17</sup> What appears to be problematic with this theory is its failure to show what motivates one to maintain ‘self-efficacy’, which this study suggests is a limitation facing all the individual models. In this study, this gap has been clearly dealt with. (See chapter two)

The above approach forms the theoretical basis on which this study is based and emphasises the influence of HIV/AIDS in shaping sexual behaviour. It acknowledges that societal factors do constrain an individual’s behaviour, but in such circumstances as highlighted above, self-perception of HIV risk particularly, today, may surpass the influence posed by social factors in shaping one’s sexual behaviour. The onus is therefore to examine how the above conceptualisation can be adopted or has been adopted to explain sexual behavioural change among young adults as a group of focal

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<sup>17</sup> See UNAIDS; *Sexual Behavioural change for HIV: Where have Theories taken us*. Geneva,

interest but at the same time as a group surrounded by a number of challenges. First, let us examine what constitutes sexual behavioural change as a preventative measure.

## SEXUAL BEHAVIOURAL CHANGE PRACTICES/SAFER SEX PRACTICES

### *Abstinence*

In general, one of the primary behavioural change options advocated mainly for unmarried persons is abstinence, which means to refrain completely from sexual intercourse in order to combat the spread of HIV/AIDS. This has been advocated for, out of the realisation that unmarried people are less likely to have stable relationships or regular sexual partners. However, abstinence seems to be problematic as a behavioural change measure. The argument raised is that abstinence is not realistic.<sup>18</sup> With such kind of views it becomes difficult for people to change their sexual behaviour by abstaining from sex, although other arguments as indicated above show that high HIV risk perceptions coupled with high HIV prevalence and deaths due to AIDS may turn the tide.<sup>19</sup>

### *Condom use*

Condoms are believed to protect one from HIV/AIDS, with a 95 % chance of protection. The 5% is a risk of tearing or slipping off during sexual intercourse. For this reason, condoms have become universally considered as the only mechanical barrier to pregnancy, sexual transmission of HIV and other STIs. The promotion of condoms is an option used as an alternative for those who cannot abstain. Despite the fact that condoms are potentially viable options for preventing the spread of HIV, they carry with them negative perceptions and have a myriad of myths surrounding them. Webb found that different reasons were used to explain the low level of condom use.<sup>20</sup>

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Switzerland, 1999:8.

<sup>18</sup> Anonymous sources suggest that participants who attended the Red Cross camp in Rukungiri Uganda in November 1991, expressed concern that 'the sexual urge was difficult to control and that sex was natural and was required for reproduction. Some participants highlighted that sex for them was an obligation to fulfil cultural status, while others commented that sex was *so sweet* and that people would rather die than leave it'.

<sup>19</sup> See Iain Wilkinson, 'Social theories of risk perception: once indispensable and insufficient', *Current Sociology Journal* 49 1 (2001): 1-22. Also see Suzanne L. Madlala, 'Pure way to fight AIDS', *Sunday Tribune* 5<sup>th</sup> January 2003.

<sup>20</sup> See note 1, Webb, *HIV and AIDS in Africa*, 148-55. Also see Eleanor Preston-Whyte, 'Reproductive health and the condom dilemma: identifying situational barriers to HIV perceptions in South Africa', in *Resistance to Behavioural Change to Reduce HIV/AIDS infection in predominantly heterosexual epidemics in third world countries*, eds. C.J. Caldwell, Pat Caldwell, John Anarfi, Kofi Awusabo-Asare, James Ntozi, I.O. Orubuloye, Australia: Health transition centre and National centre for epidemiological, 1999: 139-155. Also see Kofi Awasabo-Asarc, 'All die be die', obstacles to change in



Reasons forwarded for low utilisation level included strong religious beliefs, cultural beliefs and poor knowledge regarding use of condoms.<sup>21</sup> Of the respondents who had heard of condoms, 48% spoke of problems, risks and dangers associated with condoms. Women reported the fear that condoms would break, leak and worst of all, remain in the vagina. In addition, in many parts of Africa, condoms are associated with promiscuous behaviour, occasional affairs and to a less extent for STI prevention. People also comment that condoms reduce intimacy and impair sensation. In that regard, sex with a condom has been equated to eating ‘sweets with wrappers on’ and therefore most people do not actually use condoms. Studies that have attempted to investigate use of condoms show that the use of condoms by married couples in the developed world has fallen between 15% and 5%. In developing countries only 4% of married couples are said to use condoms and in Sub-Saharan Africa, the figure is often below 1%.<sup>22</sup> Findings have it that young Ugandans and South Africans know that using a condom helps prevent infectious diseases, but also feel that a man who uses a condom has no respect for her sexual partner. In fact, some have argued that using a condom means that there is no love or trust between the partners, while others perceive it as implying that the partner may be infected.<sup>23</sup> These reasons provide partial explanation as to why condom use has consistently remained low despite high risks of acquiring HIV/AIDS

### ***Limiting Number of Sexual Partners***

Anti-AIDS messages also include a call for faithfulness and trust in sexual relationships. This has also been due to the fact that the more sexual partners one has, the higher the chance of acquiring the virus.<sup>24</sup> In other words, behaviours that involve multi-sexual partners have been discouraged in favour of behaviours that encourage

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the face of HIV/AIDS infection in Ghana’, in *Resistance to Behavioural Change to Reduce HIV/AIDS infection in predominantly heterosexual epidemics in third world countries*, eds. C.J. Caldwell, Pat Caldwell, John Anarfi, Kofi Awusabo-Asare, James Ntozi, I.O. Orubuloye, Australia: Health transition centre and National centre for epidemiological, 1999:241-256.

<sup>21</sup> See note 20, Preston-Whyte, ‘Reproductive health and the condom dilemma’, 139-155.

<sup>22</sup> See note 16, WHO, *Health systems- improving performance AIDS*, 1995.

<sup>23</sup> See Rekha Menon, Maria, J. Waver and Konde-lule, ‘The economic impact of adult mortality in households in Rakai district Uganda’ in *Confronting AIDS, evidence from the developing world, selected background papers for the World Bank policy research report, confronting AIDS: public priorities in a global epidemic*, eds. Martha Ainsworth, Lieve Fransen, and Mead Over, Brussels, Belgium: European commission, 1998:325-39. Also see note 13, Maharaj and Tilotson, ‘Barriers to HIV/AIDS protective behaviour’, 83-96.

<sup>24</sup> See Merge Berer, *Women and HIV/AIDS: An international resource book*. London: Pandora Harper Collins Publishers, 1993: 131. Also see Marie Crewe, *AIDS in South Africa, Myths and Realities*, United Kingdom: Penguin Forum Series, 1992:32.

abstinence or one-partner relationships. Arguments in the multiple sexual partners arena have focussed on economic factors as the main factors determining decisions individuals make regarding number of sexual partners. These arguments focus on women and suggest that having many partners is often used as an economic coping mechanism.<sup>25</sup> As we examine sexual behavioural change among young adults, reference will be made to use of condom and number of partners as the selected sexual behavioural change practices.

#### UNDERSTANDING SEXUAL BEHAVIOUR AND SEXUAL BEHAVIOURAL CHANGE AMONG YOUNG ADULTS

Adolescence is a life phase in which young people are particularly vulnerable to health risks, especially those related to sexuality and reproduction: HIV/AIDS, unwanted pregnancy, unsafe abortion, too early marriages and child bearing, sexually transmitted infections, and poor nutrition. The escalating levels of HIV/AIDS are increasingly raising concern of the future of nations worldwide in particular those nations faced with high prevalence levels. The key issue is that as the levels increase, the more the risk of acquiring the infection within a population also increase. In addition, young adults are identified as entering into a reproductive stage and are faced with challenges that are likely to put them at risk. (Excitement, sexual experimentation, drugs and substance use, poverty) As evidence to the above, sexually transmitted infections (STIs) including HIV are said to be most common among young people aged 15 to 24. As early as 1998, the World Health Organisation (WHO) estimated that half of all HIV infections worldwide occurred among people aged less than 25 years.<sup>26</sup> In some developing countries, however, up to 60% of all new HIV infections are said to occur among 15 to 24 year-olds.<sup>27</sup> Yet, vulnerability to STIs including HIV is systematically patterned so as to render some young people more likely to become infected than others. Given the significant number of young people living in developing countries seriously affected by the epidemic, it is crucial that work is undertaken to understand their sexual behaviour and the likely determining factors in order to develop suitable preventive measures.

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<sup>25</sup> See note 1, Webb, *HIV and AIDS in Africa*, 145. Also see note 23, Maharaj and Tilotson, 'Barriers to HIV/AIDS protective behaviour', 83-96. Also See Abigail Harrison, Nonhlanla Xaba, Pinky Kunene, and Nelly Ntuli, 'Understanding young women's risk for HIV/AIDS: Adolescent sexuality and vulnerability in rural KwaZulu Natal', *Society in Transition* 31 1 (2001): 69-77.

<sup>26</sup> See note 16, WHO, *Health systems- improving performance*, 1995.

<sup>27</sup> See Alan Whiteside and Tony Barnett, *AIDS in the twenty-first century, disease and globalisation*,

Sexual and reproductive health among adolescents is also of major concern in Uganda and South Africa where many adolescents become sexually active at early ages and premarital sex increasingly becoming common among 15 to 19 years olds.<sup>28</sup> The concern over adolescent reproductive health is further compounded by continuous sexual activity that is unprotected, resulting in far-reaching health, social, and economic problems, which further constrain the already limited resources nationwide. For these reasons, young people in many countries, including Uganda and South Africa, have been identified as a key group for HIV-related prevention activities.

The examination and discussion of sexual behavioural change among young adults poses an interesting and challenging question, for the reason that young adults in contemporary society are faced with a number of challenging issues. Issues that most likely our forefathers did not contemplate dealing with during their adolescent ages. Young adults today and in particular those in developing countries are surrounded by social environments that are characterised by both traditional and modern social economic aspects, - on the one hand, traditions that embrace aspects such as patriarchy, and on the other, social and economic systems where survival is the key issue, and these have conflicting demands.<sup>29</sup> Let us examine these issues and see how these do affect adolescent sexual behaviour.

Young adults today are faced with numerous challenges. At the centre of all these challenges is the increasingly changing nature of social, cultural, economic and political contexts in which young adults are located. Because of this, societal practices that protected adolescents, particularly from sexual activity, have been rendered obsolete. For example, until the 1960's societal norms strongly enforced that sexual intercourse should be restricted only to married couples. In some African countries,

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New York: Palgrave Macmillan, 2002: 54.

<sup>28</sup> See M.N. Kisseka, 'Sexual attitudes and behaviour among students in Uganda', in *Journal of Sex Research* 12 (1976): 104-116. Also see Julia A Graber, 'Betwixt and between: sexuality in the context of adolescent transitions', in *New perspectives on adolescent risk behaviour*, ed. Richard Jessor, London: Cambridge University press, 1998:271. Also see Louise A. Hulton, Rachel Cullen and Symons Wamala Khalokho, 'Perceptions of the risks of sexual activity and their consequences among Ugandan adolescents', *Studies in Family Planning* 31 1 (2000): 35-46.

<sup>29</sup> See Candace Currie, 'Young people in independent schools, sexual behaviour and AIDS', in *Individual Cultural and Policy Dimensions*, eds. P. Aggleton, P. Davies, Graham Hart, London: The Falmer Press, 1990:73-87.



sexual activity was controlled. (See sections below) However, changes that took place in the late 20th century, particularly industrialisation, and urbanisation have created situations from which changes in traditional practices in some societies are understood. The above has not been a single process but rather a network of events, so intricate and cannot be exhaustively discussed in this study. Nonetheless, it is important to briefly provide some of the recent developments that have influenced the changing process. To note, industrialisation led to a *mass society* and as a result, urbanisation and wage labour become prominent features. These have had far-reaching effects on the cultural set up of numerous societies.

One of the known effects is the disruption of the family – *industrialisation threatened to tear the family apart. Home and workplace became separated; family members became individual wage-labourers; so, as a result, the interaction between family members became less intense.*<sup>30</sup> This aspect has severely affected society in so many respects. In fact, researchers that have looked at the family structure in relation to spread of HIV/AIDS indicate that as a result of a wage-labour society, fathers were often absent while mothers assumed the burden of care and support for the family as a whole.<sup>31</sup> Such *one-parent* responsibility had profound consequences. In particular, women sought economic support from other women and (usually their relatives) so old kinship ties dissolved and new kinship networks, based upon economic support and mutual aid came into existence. In essence, changes due to urbanisation, modernisation, have changed parental roles, which have made it difficult for parents to monitor and help their adolescents grow into responsible adults, and over generations, this aspect has inadvertently led to changes in old societal traditions, where children were cared for by both parents or members of the extended families.<sup>32</sup>

To elaborate on the above further, industrialisation, urbanisation, and modernisation occur in most societies that still uphold their cultural realm. The mix of

<sup>30</sup> See *Family and Industrialisation*, [www.esher.ac.uk/scextranet/sociology/industrialisation](http://www.esher.ac.uk/scextranet/sociology/industrialisation), February 2002: Accessed August 2002

<sup>31</sup> See L. Gobopamang and B. Kenabetshe, 'The socio-economic and cultural context of the spread of HIV/AIDS in Botswana', *Health Transition Review*, sup.3 7 (1997): 97-101. Also See Quarraisha Abdool Karim, 'Current state, trends and the impact of the HIV/AIDS epidemic in South Africa', *paper prepared for the 1998 South African Human Development Report, commissioned by the United Nations Development Programme*, 1998:15.

<sup>32</sup> See note 1, Webb, *HIV and AIDS in Africa*, 121. Also see Denise du Toit, 'The profession orientation and family life of the working married woman', *South African Journal of Sociology*, 23 1 (1992): 124-132.

the two has not created clear-cut guidelines that young adults can follow in many respects, but more specifically in terms of sexual activity. Studies that have engaged in understanding cultural changes and its impact on the sexual attitudes and behaviour have looked at school environment as one of modernisation ideologies, where free interaction, easy communication, and, recently, improvement in technology have narrowed the gap between individuals as well as reduced the gap between cultural boundaries, report that traditional attitudes and behaviour regarding sexual acts have become more relaxed and premarital pregnancies have become more widely accepted than they were before.<sup>33</sup> What appears as a general explanation in these studies, relates to exposure to non-indigenous factors already discussed in earlier sections. In essence, sexuality and sexual activity among youth has taken a new direction.

Evidently, in some African countries, there were cultural practices through which sexual activity was controlled. This was done through imposing norms, of which it was considered a taboo if one of them was broken and hence punishable.<sup>34</sup> Quoting Du Toit, Webb indicates that some traditions in South Africa as in some parts of Uganda, an engagement in such behaviour was considered against the norm and any body found to have broken the norm was sanctioned by society. Such forbidden behaviour included premarital pregnancies, elopement and many others. Furthermore, certain customs and initiation ceremonies such as circumcision were practised, which inadvertently controlled engagement in sexual activity. Only after circumcision were young adults expected to engage in sexual relations. The importance of this custom was mainly the emphasis placed on age at which boys or girls were circumcised, which ultimately limited the age at which they engaged in sexual activity.<sup>35</sup> In some parts of South Africa, there are cultural practices that are intentionally designed to prevent premarital sexual relations. These include virginity testing, and *Ukusoma* (non-penetrative sex)<sup>36</sup> Today, these practices appear to be less frequent. That over 15% to 20% of grade twelve females are reported to have fallen pregnant or have

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<sup>33</sup> See J.M. Twa-twa, 'The role of the environment in the sexual activity of school students in Tororo and Palisa districts of Uganda', *Health Transition Review* Sup. 3 7 (1997): 67-81. See note 28, Kisseka, 'Sexual attitudes and behaviour among students in Uganda', 104-16.

<sup>34</sup> See note 28, Kisseka, 'Sexual attitudes and behaviour among students in Uganda', 104-16.

<sup>35</sup> See note 28, Kisseka, 'Sexual attitudes and behaviour among students in Uganda', 104-16.

<sup>36</sup> See note 1, Webb, *HIV and AIDS in Africa*, 116. Also see Suzanne L. Madlala, 'Virginity testing: Managing sexuality in a maturing HIV/AIDS epidemic', *Medical Anthropology Quarterly-International Journal for the Analysis of Health* 15 14 (2001): 15-33.



children,<sup>37</sup> is partly attributable to the above.

On the whole, the above suggests that changes in societal norms worldwide, also in Uganda and South Africa resulting from changes in industrialisation, urbanisation, increased communication and technology, have led to changes in the way society responds towards sexual matters. It appears that there is more societal acceptance towards premarital sex than before. Available evidence suggests that sexual intercourse at an early age has become common.<sup>38</sup> Using age at first intercourse as an indicator, most young adolescents have their first sexual encounter at earlier ages. Research worldwide supports this view and provides statistics that present clear illustrations. Accordingly, young adults in the ages 17 to 18 present over 75% for boys and 60% for girls already having sexual intercourse.<sup>39</sup> Putting these statistics in the actual age groups, it is recorded that, 22% of 14, 30% of 15, 43% of 16, 58% of 17, and 60% of 18 year olds are noted as already engaging in sexual related activities in most parts of the world.<sup>40</sup> Uganda, as well as South Africa, shows similar trends. Moreover, these trends are not only measured by the age at first intercourse, but also by the rate at which teenagers are getting pregnant.<sup>41</sup> There is also evidence to suggest that sexual activity among youth in Uganda is now largely premarital and more so with a high level of sexual activity with non-regular partners.<sup>42</sup> This visible change in sexual behaviour has also meant increased levels of HIV/AIDS prevalence among young adults. This is attributable to changes in cultural traditions.

It would, however, be limiting to suggest that the rapid spread of the disease

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<sup>37</sup> See note 1, Webb, *HIV and AIDS in Africa*, 116.

<sup>38</sup> See D. Byrne, 'Sex without contraceptives', in *Adolescent, sex and contraception*, ed. D. Byrne, USA: Lawrence Erlbaum Associates Inc, 1983: 3-8.

<sup>39</sup> See note 28, Graber, 'Betwixt and Between: Sexuality in the Context of Adolescent Transitions', 271. Also see S.J. Lachman, *Heterosexual HIV/AIDS as a global problem: Towards 2000*, Pietermaritzburg: The Natal Witness Printing and Publishing, 1997: 18-21. See Suzan Moore, and Rosenthal, *Sexuality in Adolescents*. London: Routledge, 1993: xi, 63. See Ruth Nduati and Wambui, *Communicating with Adolescents about AIDS: experience from East and Southern Africa*, Ottawa: International Development Research Centre, 1997:11.

<sup>40</sup> See note 28, Graber, 'Betwixt and Between: Sexuality in the Context of Adolescent Transitions', 271. See note 39, Lachman, *Heterosexual HIV/AIDS as a global problem*, 18-21. Also see note 40, Moore and Rosenthal, *Sexuality in Adolescents*, 64.

<sup>41</sup> See J.C.Caldwell, 'The impact of the African AIDS epidemic', *Health Transition Review*, sup. 2 7 (1997): 169-188. Also see Konde-lule, 'Adolescent sexual networking and HIV transmission in rural Uganda', *Health Transition Review*, sup. 2 7 (1997): 89-100. Also see note 39, Nduati and Wambui, *Communicating with adolescents about AIDS*, 11-16. Also see note 1, Webb, *HIV and AIDS in Africa*, 117.

<sup>42</sup> See Purnima Mane and Peter Aggleton, 'Gender and HIV/AIDS: What Men have to do with it', *Current Sociology Journal* 49 6 (2001): 23-35.



epidemic is all due to changes in cultural traditions resulting from industrialisation and urbanisation, and ignore the fact that some of these cultures have become part of the reasons as to why HIV/AIDS has spread so rapidly in some developing countries. In most cultures, the dominant gender ideologies, which determine what is seen as appropriate among male and female behaviour, give rise to practices that contribute to risk of, and vulnerability to, HIV. These constructs have a considerable influence on how sex and sexuality is interpreted by both men and women. Some of these constructs are associated with 'acceptable behaviour', such as not using condoms; and polygamous *relationships*, (not marriages). Thus men's actions as well as women's may well be constrained by such traditions.<sup>43</sup> The emergence of HIV/AIDS has meant that such settings have to be challenged.<sup>44</sup> It is from this view that the World Health Organisation documented as far back as 1994, that 'encouraging safer sex practices means negotiating a path through the minefield of taboos, prejudices and inhibitions that surround sexual activity in almost every society'.<sup>45</sup> Kisseka and Crewe highlight a number of cultural practices in different parts of Uganda and South Africa, which include the Banyankole, the Babwa, the Basoga, the Sebei, Zulus and many others, which were not against multiple sexual relationships. For males among these ethnic groups, sex meant the ability to command respect, a sign of bravery, and cause to accrue prestige, express love, and was therapeutic for boys.<sup>46</sup>

The other factor worth considering is poor communication in which culture is partly to blame. Kisseka further records that in most cultures in Uganda, recognition and discussion of sexuality is hedged with strong taboos and restrictions, particularly between closest generations and between the socially unequal.<sup>47</sup> Discussions into sexual matters were to be discussed by a specified member of the family before marriage or at initiation ceremonies. Lear provides a good illustration on which she stipulates that communication among parents and their children is not a frequent phenomenon.<sup>48</sup> While that is the case, the shifts in culture as a result of modernisation

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<sup>43</sup> See note 42, Mane and Aggleton, *Gender and HIV/AIDS*, 25.

<sup>44</sup> See note 24 Crewe, *AIDS in South Africa, Myths and Realities*, 30.

<sup>45</sup> See note 16, WHO, *Health systems- improving performance AIDS*, 1995.

<sup>46</sup> See note 28, Kisseka, 'Sexual attitudes and behaviour among students in Uganda', 104-16. Also see note 24 Crewe, *AIDS in South Africa, Myths and Realities*, 32.

<sup>47</sup> See note 28, Kisseka, 'Sexual attitudes and behaviour among students in Uganda', 104-16. Also see note 24 Crewe, *AIDS in South Africa, Myths and Realities*, 30.

<sup>48</sup> See Dana Lear, *Sex and sexuality, risk and relationships in the age of AIDS*, London: Sage Publications, 1997: 29-36.

and urbanisation have not fully addressed this issue and for this reason, adolescents engage in sexual intercourse with little knowledge, which is a cause for concern especially at this time of HIV/AIDS.<sup>49</sup>

In the previous chapter, a discussion of the economic conditions in Uganda and South Africa was presented as backgrounds in which young adults operate. Young adults are faced with economic conditions, characterised by inadequate financial support systems, poverty and where survival is a key issue. As a result, young girls are forced to provide for themselves and are often drawn into sexual relations in exchange for material goods.<sup>50</sup> Research has shown that the need of material goods by young adult girls has become prevalent and this determines the choices they make regarding sexual behaviour.<sup>51</sup> This poses a problem to sexual behaviour change and in most cases short-term benefits are considered rather than long-term benefits.

Another aspect from which we can understand adolescents is peer pressure. Young adults are under enormous pressure from their peers, and most frequently, this becomes negatively reinforcing. Available literature suggests that while there are a number of factors that are said to lead to sexual intercourse, peer influences are at the centre of the initiation process. The adolescent in a group tends to look up to the group's behaviour as the standard measure. What often happens is that the adolescent relies on peers to provide guidelines for behaviour, as well as a clarification of goals and development of interpersonal skills and attitudes.<sup>52</sup> Therefore, adolescents learn to locate themselves within a network of like-minded and similar others. While Moore, in the introductory part of her discussion, looks at this issue intensely,<sup>53</sup> she does not recognise the fact that even when an adolescent does not actually fit into the group, s/he will try to 'fit in' or try to belong to a group, despite what s/he feels about it.

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<sup>49</sup> See note 31, Gobopamang and Kenabetshe, 'The socio-economic and cultural context of the spread of HIV/AIDS in Botswana', 97-101.

<sup>50</sup> See Konde-lule, *Baseline knowledge, Attitudes and Behaviours relevant to AIDS in Hoima and Kibale Districts*, Mulago Kampala: Institute of Public Health Makerere University, Sept 1993 (*Unpublished material*). See note 1, Webb, *HIV and AIDS in Africa*, 116, 145. Also see Sarah Castle, 'The context and consequences of economic transactions associated with sexual relationships among Malian adolescents', in *The Third African Population Conference Proceedings*. Durban 6-10 December, Union for African Population Studies (UAPS) 3 (1999): 105-128.

<sup>51</sup> See A.N. Dladla, C.A. Hiner, E. Qwana and M. Lurie, 'Speaking to rural women: the sexual partnerships of rural South African women whose partners are migrants', *Society in Transition* 32 1 (2001): 78-83. Also see note 25, Harrison, Kunene, Xaba, and Ntuli, 'Understanding Young Women's Risk for HIV/AIDS', 69-77.

<sup>52</sup> See note 48, Lear, *Sex and sexuality, risk and relationships in the age of AIDS*, 37.

Therefore, the need to belong is an important factor when analysing peer pressure. Studying young adolescents in Uganda, Twa-twa found out that those adolescents that were involved in drug use, smoking, and alcohol drinking were those that had many friends.<sup>54</sup> Abrams advances similar arguments and suggests that while society at a broader level tries to shape the young adults into what is called '*acceptable behaviour*' (through use of values, customs and norms) the acceptance of such behaviour will depend on a number of factors (social class, gender and education), including peer groups.<sup>55</sup> Above all, adolescents themselves define what is '*normal behaviour*' and respond to it, which is a significant issue that should be taken into account when trying to understand adolescent behaviour. It is at this point that some have argued that there is need to devise a way of thinking with the young rather than think for them.<sup>56</sup>

Contrary to the above, peers can also bring positive aspects into society such as information on transmission of HIV/AIDS. Moore argues that peer groups can be a good source of sexual education to an individual, and indeed have begun to be used in sexual behavioural change programmes as they are believed to speak the same language and at levels that they both can understand.<sup>57</sup> However, this type of sex education is not enough and this may then result in what is called 'blind leading'.<sup>58</sup> Unless this particular sex education is supplemented by substantial and real education, the problem may not be solved. Clear guidance is needed if positive results are to be obtained.

Finally, young adults are faced with a new challenge, HIV and AIDS. Varga presents literature, in which she clearly illustrates the extent to which discussions regarding sexual behaviour have been largely influenced by structural and ecological

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<sup>53</sup> See note 39, Moore, *Sexuality in Adolescents*. xi.

<sup>54</sup> See note 33, Twa-twa, 'The role of the environment in the sexual activity of school students', 74-75.

<sup>55</sup> See Dominic Abrams, 'AIDS individuality: relationships, sexual behaviour and attitudes among 16-19-year-olds', in *Individual Cultural and Policy Dimensions*, eds. P. Aggleton, P. Davies, Graham Hart, London: The Falmer Press, 1990: 35.

<sup>56</sup> See Edward Kirumira, 'Creating space for gender and HIV/AIDS sensitive intervention for in school youth: lessons from the Ugandan Experience', *paper presented at a colloquium held at Natal-Durban University*, 8-11 April 2002.

<sup>57</sup> See Phelps F. A. Mellanby, 'Sex education, the effect of a peer programme on pupils (aged 13-14 years) and their peer leaders', *Health Education Journal* 53 (1994): 129-39. Also see G. Maina. 'Youth peer survey in Kenya', *Planned Parenthood Challenges* 1 (1995): 37-8. Also see note 39 Moore and Rosenthal, *Sexuality in Adolescents*, 67. Also see Zamndoandwe Nxumalo, 'Is peer group education an appropriate strategy to curb the spread of HIV/AIDS for young people in KwaZulu Natal: Policy reports', paper presented at the London School of Hygiene and tropical medicine, 1996: 1-29.



factors with little attempts to examine the influence HIV/AIDS itself poses to sexual behaviour.<sup>59</sup> However, because of the fatalistic nature of the disease, it has meant that changes have to be made in terms of sexual behaviour, cultural practices, and in terms of communication, particularly on sexual matters that were previously considered as a subject limited only to adults. In other words, HIV/AIDS has led to the formulation of a new outlook on the existing order. An outlook, as argued, that might force adolescents to change their sexual behaviour despite the pressures that surround these young adults.

The consequences of HIV/AIDS, such as morbidity and mortality, along with education programmes, and how these aspects increase perceived risk of HIV/AIDS have been covered in the previous chapter and in the earlier sections, highlighting the theoretical framework. A number of research projects have begun to employ this conceptualisation as a basis for understanding sexual behaviour. Caldwell has argued that adolescents and young adults in Uganda are constantly worried about AIDS and this has had strong implications towards their sexual behaviour; that young people are learning to stick to a limited number of partners.<sup>60</sup> This, in a sense, shows that once individuals acknowledge that they are at risk, they are likely to change their behaviour. Conversely, low HIV risk perceptions may put them at risk of acquiring the HIV infection. Campbell has reported that gold miners in South Africa, who had unprotected sex with casual sex workers, typically perceived the risk of developing AIDS some time in the future as unrealistic and much smaller than the large risks they face in their jobs every day.<sup>61</sup>

Further literature from other countries outside South Africa and Uganda, view HIV risk perception as a vital recipe for change. Lear's study, which focussed on young adults and sexual behaviour, provides good illustration of the potentially differential effects of the HIV risk perceptions on the adoption of safer sex practices. Lear reports that those participants in the study who knew about HIV/AIDS and

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<sup>58</sup> See note 39 Moore and Rosenthal, *Sexuality in Adolescents*, 67.

<sup>59</sup> See C.A. Varga, 'Sexual decision-making and negotiation in the midst of AIDS: youth in KwaZulu Natal' *Health Transition Review*, sup. 3 7 (1997): 48-51.

<sup>60</sup> See note 41, Caldwell, 'The Impact of the African AIDS Epidemic', 186.

<sup>61</sup> See C. Campbell, 'Migrancy, masculine identities and AIDS: The psychosocial context of HIV transmission in the South African gold mines', *Journal of Social Science and Medicine* 45 2 (1997): 273-281. Also see Dominique Meekers and Megan Klein, *Determinants of Condom Use among Yaounde and Doula, Cameroon*, <http://www.psiwash.org/psi/research/catalog.asp?category=ERS> February 2001: Accessed June 2002.

perceived the risk of getting it very seriously were able to use condoms during sexual intercourse.<sup>62</sup> What comes out of this review, which Moore also highlights, is the fact that for this to happen, young adolescents must acknowledge that they are at risk of getting the infection.<sup>63</sup> Moore argues that most of the adolescents do not look at the risk behaviour in order to accept safe sex messages but rather look at risk groups. They therefore believed that as long as they do not get involved with such groups, they would remain safe from the infection.<sup>64</sup> These kinds of attitude illustrate the gaps within the education programmes that provide information disregard of their audiences. Bolton relates to that and indicates that if preventive measures had concentrated right from the beginning on informing people of the dangers of these high risk behaviours without adulterating their message, there would be no doubt that more relevant behaviour change would have occurred.<sup>65</sup>

In Summary, we have examined a number of issues surrounding adolescents in contemporary society and have argued that these pose challenges in numerous respects including sexual behavioural decisions. However, the argument goes further and suggests that young adults are faced with a more challenging situation - that of dealing with HIV/AIDS in addition to all the social dynamics that surround young adults. And that the effects of HIV/AIDS mean that young adolescents have got to question themselves, question their sexual behaviour, or run the risk of getting HIV. The conceptual framework below illustrates the above relationship clearly and highlights some of the factors vital for analysis, as well as providing a summary of the discussion above.

## **CONCEPTUAL FRAMEWORK**

### ***Variables and the Conceptual Frame work***

We have noted that studying sexual behaviour change among adolescents in the era of HIV/AIDS requires identifying those variables that may influence their attitudes to

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<sup>62</sup> See note 48, Lear, *Sex and sexuality, risk and relationships in the age of AIDS*, 101-102. Also see Jean Claude Deheneffe, Michel Careäl and Amadou Noubissi, 'Socio-economic Determinants of Sexual Behaviour and Condom Use', in *Confronting AIDS, evidence from the developing world, selected background papers for the World Bank policy research report, confronting AIDS: public priorities in a global epidemic*, eds. Martha Ainsworth, Lieve Fransen, and Mead Over, Brussels, Belgium: European commission, 1998: 131-147.

<sup>63</sup> See note 39, Moore and Rosenthal, *Sexuality in Adolescents*, 129.

<sup>64</sup> See note 39, Moore and Rosenthal, *Sexuality in Adolescents*, 129.

<sup>65</sup> See R. Bolton, 'Rethinking HIV prevention: Critical assessment of the content and delivery of AIDS risk reduction messages', in *Rethinking AIDS prevention, Cultural approaches*, eds. Ralph Bolton and Merrill Singer, London: Gordon and Breach Science Publishers, 1992:56.

and the need to change their sexual behaviour.<sup>66</sup> What has been clearly indicated is that often an individual's background characteristics, such as economic status, knowledge of HIV/AIDS, and social cultural backgrounds, are some of the factors that circumscribe and influence the decision to change one's sexual behaviour. However, over and above that is self-perceived risk of HIV/AIDS, which is potentially effective in influencing sexual behaviour particularly in this era of high HIV/AIDS prevalence levels with life threatening consequences. It is, however, important to note that the above variables are in one way or another interlinked and that sexual behavioural change may occur, not because of single variables but a combination of variables as illustrated in the conceptual framework below. Let us examine the different stages.

The conceptual framework in diagrammatic form (see figure 3.2) below is presented in different stages. Stage 1 focuses on background characteristics that might plausibly explain sexual behaviour among young adults. In this stage, some of the characteristics that surround the individual and which in some cases, as shown above, are likely determinants of their sexual behaviour are illustrated. (See full lines marked 1) The national context, represented by government responses and other interest groups is highlighted and worth mentioning because it appears that in any given society, this is the gateway to policy intervention and implementation, which ultimately affects individual behaviour. Their support in implementing policies that are directly related to prevention, such as education programmes and condom distribution policies, are vital for behaviour change. However, this has not been included in the analysis due to data limitations. Other factors such as peer pressure, changing social norms are included although broadly related to background factors.

Stage II relates largely to the theoretical underpinnings of this work, and shows how HIV risk perception evolves. A number of issues need to be reviewed: first, one notes that individuals are or may be engaged in risk sexual behaviour such as having sexual relations with multiple partners, inconsistent insistence on use of condoms or no condoms at all, coupled with sexual relations with non-regular sexual partners. As noted from the discussion above, engagement in such risk behaviour to an extent can be influenced by a number of societal variables. This is presented by full and dotted

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<sup>66</sup> See note 1, Webb, *HIV and AIDS in Africa*, 120-127.



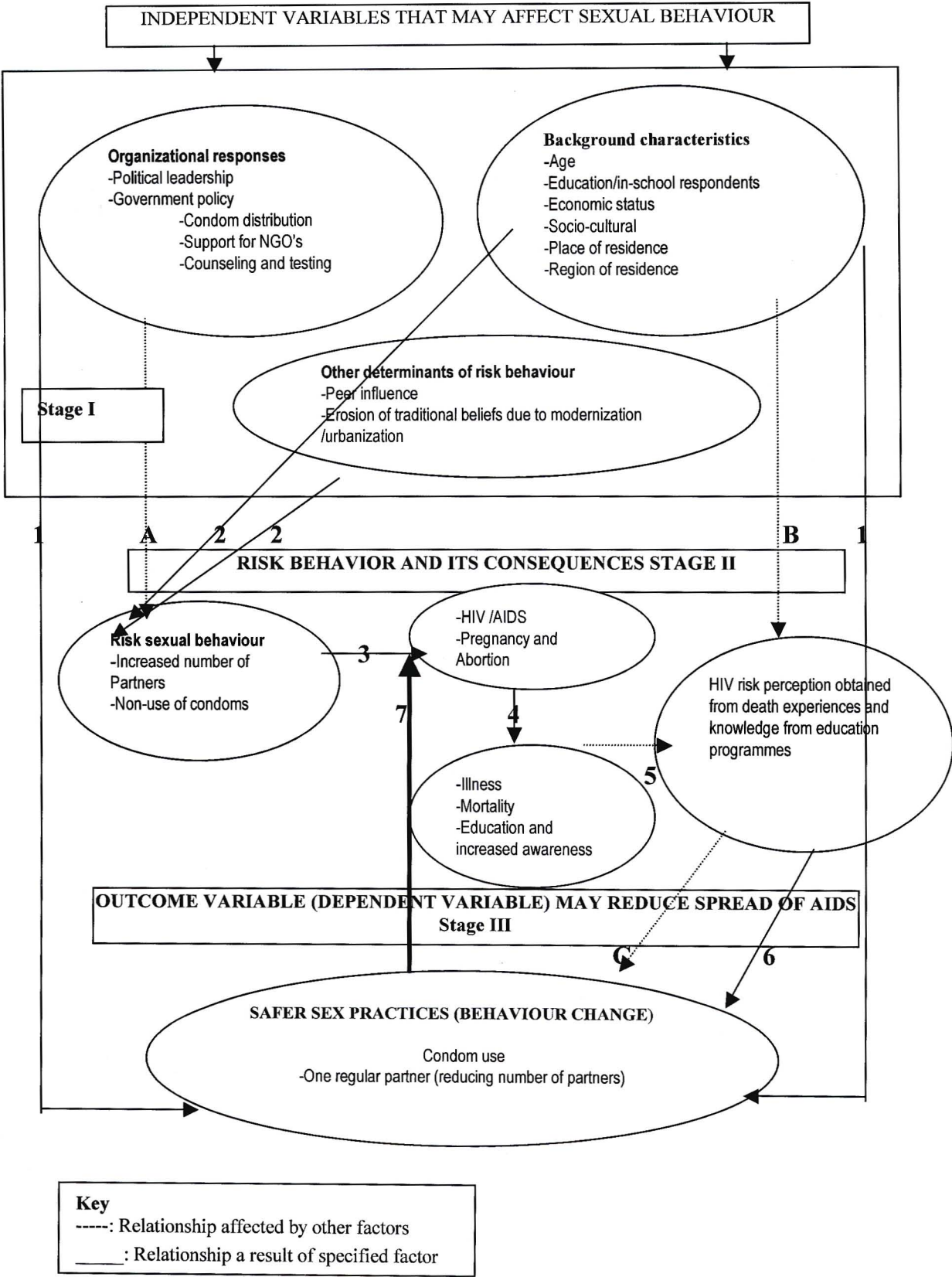
lines in the diagram. In retrospect, this can lead to acquiring the HIV infection resulting in illness and death. Second, out of all that emerges the need to prevent further spread of the infection and in many corners, prevention has been the key. Depending on the levels at which individuals have been exposed to the above experiences, some will perceive themselves to be at high risk of getting the infection and others not. Using the different lines again, the diagram illustrates that this process can be affected by background characteristics, which circumscribe these individual. (See dotted lines **A**, **B** and full lines marked **2**, **3,4** and **5**)

In stage III, we see that individuals begin to change their sexual behaviour by having fewer numbers of sexual partners, or even insisting on using condoms depending on their perceived risk of HIV infection. (See line **6**) The diagram also shows that this process can be affected by factors other than self-perceived risk of HIV/AIDS. (See dotted line **C**) Line **7** shows the feedback link and this shows that once behaviour change is obtained, then we can expect low levels of prevalence of HIV/AIDS.

### **CONCLUSION**

This chapter concludes the first part of this work, which focuses on laying the foundation for understanding the focus of this study, and also identifying gaps existing in available research. The common thread in these chapters is the argument that self-perception of HIV risk is a vital aspect that needs to be considered when understanding sexual behaviour. Further, these chapters consider other social factors that surround the individual and how that may affect the process of change. What now becomes fundamental is that these two varying likely predisposing factors cannot be examined in isolation but are rather intertwined and interconnected and that sometimes, it becomes almost impossible to separate the two.

**Figure 3.2 CONCEPTUAL FRAMEWORK**



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## CHAPTER FOUR

### DATA, PROCEDURE, AND BACKGROUND CHARACTERISTICS

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#### INTRODUCTION

This chapter provides a detailed description of the steps undertaken in the execution of the current work. In the attempt to fulfil the above objective, four main sections have been considered. Section A provides a description of the data and data sources, including questionnaire design, sampling and data limitations. Section B proceeds by providing a description of the population selected for the study, selected variables and any coding procedures undertaken. Section C focuses on data analysis and illustrates the type of analysis procedures employed. Finally, section D discusses the background characteristics of the respondents as at the time of data collection. But first, since the study employs secondary data, a brief discussion of quantitative method of research is provided as an approach in which secondary data analysis is located

**KEYWORDS:** Quantitative methods, UDHS data, SADHS data, Dependent and Independent variables, Study population, Logistic regression, Regression models and background characteristics.

#### QUANTITATIVE APPROACH: A BRIEF DISCUSSION

Quantitative research is an approach to research, where findings are obtained from patterns, which emerge out of the analysis of statistics, surveys, or raw data. According to Neuman, quantitative research relies primarily on assumptions from the positivist epistemologies, which are linked with exact measures, and objective research.<sup>1</sup> Bailey defines quantitative method of research in a positivistic approach, which holds the view that the logic of inquiry applied in the natural sciences can be employed and applied in the social sciences.<sup>2</sup> In this case, finding a cause for a social problem should be done within a social scientific inquiry framework. With quantitative approach, therefore, clear steps of research are set out and the researcher

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<sup>1</sup> See L.W. Neuman, *Social research methods: quantitative and qualitative approaches*. London: Alan & Bacon Publishers, 1997:63, 106.

<sup>2</sup> See D.K. Bailey, *Methods of social research*. London: Macmillan Publishing Co., 1982: 9.



has a proposition to be tested. In addition, a deductive philosophy is employed where conclusions are drawn from the general to specific as a tool to build knowledge. In its many characteristics, quantitative research covers large areas and uses large sample sizes; it, therefore, enables generalisations from obtained findings. The major characteristics of this approach are that it seeks to establish causal relationships to build explanations for a particular phenomenon, but, for this condition to occur, the data used must be subjected to rigorous statistical analysis and procedures such as multiple regressions.

### THE USE OF QUANTITATIVE AS OPPOSED TO QUALITATIVE RESEARCH

One of the advantages of quantitative research is that it allows flexibility in treatment of data in terms of comparative analyses and statistical analyses,<sup>3</sup> which is the main feature of this study. The study employs secondary data Demographic Health Survey data (DHS) for both Uganda and South Africa for comparison purposes. These surveys are conducted within the quantitative method of research, and because surveys obtained using this method produce data that covers a wider area, this allows the analysis of behavioural patterns of particular societies, groups or even countries to be obtained, and in addition, the validity and reliability of such findings is often high as compared to qualitative research.

The major limitation underlying this approach, however, is its failure to ascertain the subjective meanings and explanations that people attach to social phenomena. People have different interpretations and these interpretations breed different effects. It is also heavily criticised for its failure to develop new concepts, ideas that qualitative research offers. This approach is further criticised for equating social research with natural science research.<sup>4</sup> The argument usually put forward is that people cannot be subjected to experiments and observations as objects.

<sup>3</sup> See Ian Jones, 'Mixing Qualitative and quantitative methods in sports fan research', *The Qualitative report* 3 4 (1997): 1-12, (on-line journal) [www.nova.edu/ssss/qrqr3](http://www.nova.edu/ssss/qrqr3), December 1997: Accessed May 2001.

<sup>4</sup> See Nicole Westmarland, 'The quantitative/qualitative debate and the feminist research: A subjective view of objectivity', *Forum: Qualitative Social Research* 2 1 (2001): 1-11 (on-line journal), <http://qualitative.research.net/gqs>, February 2001: Accessed April 2002. Also see Udo Kelle, 'Sociological explanations between micro and macro and the integration of qualitative and quantitative methods', *Forum: Qualitative Social Research* 2 1 (2001): 1-19, (on-line journal), <http://qualitative.research.net/gqs>, February 2001: Accessed April 2002.

## SECTION A: SOURCE AND DESCRIPTION OF DATA

### *Data*

Two cross-sectional surveys were employed to examine the likely predisposing factors of sexual behavioural change among young adults. The Ugandan Demographic Health Survey (UDHS) of 2000/2001 conducted and implemented by the Uganda Bureau of Statistics (UBOS), and the South African Demographic Health Survey (SADHS) of 1998, conducted by the Department of Health (DoH). Funded mainly by the US Agency for International Development (USAID) through Macro International,<sup>5</sup> these national data sets are meant to provide information necessary for monitoring the well being of people in any given society. The development of these cross-sectional surveys arose out of the limitations faced in analysing health and demographic parameters in developing countries. Thus, African nations, with support from USAID, have participated in these surveys, and in most countries these surveys started as early as 1988, and are now in their third wave, since they are carried out at five-year intervals. Although there were other surveys of this nature in South Africa, the SADHS of 1998 is the first of its kind to cover all people in their ethnic groupings in the nine South African provinces. This is attributable to the past governance system in South Africa.

The surveys are further aimed at contributing to national health information systems by surveying the nature and status of health of the citizens. Thus the data measures whether the services provided make any impact on the lives of the people as well as investigating their needs.<sup>6</sup> While the surveys take into account the different sexes when collecting data, their principal respondents are females between the ages of 15 to 49. This is due to the nature of the targeted health information. (Fertility and child mortality levels; fertility preferences; awareness and use of contraceptive methods; HIV/AIDS; immunisation, and reproductive health)

### *Questionnaires*

A number of questionnaires were administered in each country. However, variation in ensuing issues in the different countries result in redesigning of different questions or

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<sup>5</sup> The Ugandan Demographic and Health Survey was also funded in addition to USAID, by Department for International Development (DFID Uganda), United Nations Children's Fund (UNICEF Uganda), and United Nations Population Fund (UNFPA Uganda).

<sup>6</sup> See Department of Health (DoH), *South African Demographic Health Survey Report 1998*, South Africa: Department of Health, Macro International, 1998.

formulation of new sets of questions. Nonetheless, two major model questionnaires were administered in the selected countries, which follow the international series of DHS, hence allowing for comparative studies. These include the women, and the household questionnaires. (Contents based on DHS+MODEL “B” questionnaires developed for use in countries with low level of contraceptive use) The women’s questionnaire was administered in each sampled household, provided there was an eligible woman as identified by the set criteria. From the women questionnaire, information about her socio-economic background, marital and sexual relations, communications with partners, partner’s characteristics were obtained. Recently, questions on HIV/AIDS have been included in this questionnaire: information about sexual behaviour, use of condoms, knowledge of HIV/AIDS and STIs and of sources of HIV/AIDS related materials are obtained.

The household questionnaire obtains information that can be used to establish the socio-economic status of the household. During data collection, the household questionnaire was used to list all the members and visitors in selected households. Some basic information was collected on the characteristics of each person identified as eligible for the study, including his/her age, sex, education, and relationship to the head of the household. The main purpose of the household questionnaire was to identify women and men who were eligible for individual interviews. In addition, the household questionnaire collected information on characteristics of the household dwelling units - such as source of drinking water, type of toilet facility, type of floor, wall, and roofing materials, and ownership of various durable goods (radio, cars, television, bicycle).

In South Africa, the adult questionnaire was added to provide information on the health of adults, in particular chronic illnesses such as Tuberculosis, Diabetes, and other family medical histories, while in Uganda the men’s questionnaire was administered to all men (15 to 54) living in the third household in the UDHS sample. It contained similar questions as the women’s questionnaire, but was shorter because it did not contain reproductive history, maternal, and child health. For this study, only data collected using the women’s questionnaire will be used. The rationale for selecting this questionnaire is based on one major reason: that information for this

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analysis, and for comparative purposes is only obtainable from the women's questionnaire in both countries.

The questionnaires were originally developed in English and translated into the different languages spoken in the respective countries. In South Africa all 11 official languages were taken into account, i.e. English, Zulu, Sotho, Swati, Sepedi, Tswana, Venda, Tsonga, and Ndebele; while in Uganda, questionnaires were translated into seven main languages, namely Ateso-Karamajong, Luganda, Lugbara, Luo, Runyankole-Rukiga, and English. Even though there are more than seven languages, the people of Uganda can at least speak one of the above mentioned languages, which made it easy for the survey.

### ***Sampling and response rate***

298 primary sampling units were selected in Uganda while 973 were selected in South Africa. In both countries, a two-stage sampling design was employed. In South Africa, the first stage was based on the selection of enumerator areas as demarcated by the 1996 census. Provinces were used and in each province, a minimum of 1,000 households was the target number, which provided a second stage of sampling. The survey had a 97% response rate. Out of 12,869 households targeted, 12,247 households were interviewed.<sup>7</sup> In Uganda, 41 districts out of 45 were sampled due to the instability problem particularly in the northern parts of Uganda. The un-sampled districts contribute to approximately 5% of the total population. The districts were selected according to regions, i.e. central, eastern, northern and western. The total number of households selected was 8,792 of which 8,234 were occupied. 7,885 were successfully interviewed yielding a 96% response rate. The short-fall was largely due to structures that were found vacant. The sample design in Uganda followed a two-stage sampling design as well. The first stage sample frame for this survey was the list of enumerator areas (EAs) compiled from the 1991 population census. In this frame, the EAs are grouped by parish within a sub county, by sub-county within a county, and by county within a district. A total of 298 EAs, 102 in urban areas and 196 in rural areas were selected. Within each selected EA, a complete household listing was done to provide the basis for the second-stage. The number of households to be

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<sup>7</sup> See note 6, DoH and Macro International, *The SADHS Report*, 4.

selected in each sampled EA was allocated proportionally to the number of household in the EA

This sample design for both countries, however, was non self-weighting for a number of reasons, firstly, the surveys in South Africa and Uganda had as one of their objectives to provide survey estimates for each province or district as a separate entity. Thus did not take into account the disproportionate population distribution of the different districts and provinces. Secondly, Eastern Cape received extra funding from USAID/South Africa and was therefore over-sampled (2000 households) to provide separate survey results for the five health regions<sup>8</sup>. Uganda had similar situations. Urban areas and districts included in the Delivery of Improved Services for Health (DISH) project and the Community Reproductive Health Project (CREHP) were over-sampled in order to generate estimates of contraceptive prevalence rates for these segments of the population. These are grouped in six sub-domains, e.g. group I Mbarara, and Ntungamo.<sup>9</sup> Thirdly, following the 1996 census results, only 3% of the South African population was found to have classified themselves as Asians.<sup>10</sup> This meant that an equal probability sample would limit the number of Asians included in the survey and this would impede upon analysis of this group. To increase the survey estimates for this group, KwaZulu Natal and Gauteng urban areas (areas with greater Indian population) were therefore over-sampled.

### ***Practical considerations***

**Type of questions:** The design of questions in surveys generally does not allow one to obtain detailed and in-depth information on any social problem. The questions were asked in such away that the respondents had to provide answers within the set framework. Thus information obtained from the data is characterised by the same limitation. In addition to that, different countries adjust questions to suit the issues arising in the population and this subsequently breeds different information, which create comparison problems.

**Sampling:** The sample design is not self-weighting and, therefore, some areas are more represented than others. In South Africa, the Eastern Cape was over sampled in

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<sup>8</sup> See note 6, DoH and Macro International, *The SADHS Report*, 1.

<sup>9</sup> See Uganda Bureau of Statistics (UBOS) and ORC Macro, *Uganda Demographic Health Survey 2000-2001* Calverton, Maryland, USA: UBOS and ORC Macro, 2001.

<sup>10</sup> See Statistics South Africa, *The people of South Africa: Population Census 1996*, Pretoria: StatSA Publications, 1996.

relation to the other provinces. In Uganda as in South Africa, some districts' sample designed intended to generate estimates of contraceptive prevalence rates for the districts in the DISH and CREHP projects, and for that reason, yielded larger sample sizes than other areas.

**Comparison:** The selected data sets, UDHS and SADHS were collected at different times. In addition, different variables appear in different data sets, however, for one to draw a comparative analysis, similar variables have to be selected from the different data sets. Very useful variables have had to be dropped because they appear in one data set and not in the other, which makes comparison very basic, based on simple and similar variables.

**SECTION B: THEORETICAL CONSIDERATIONS, STUDY POPULATION AND  
SELECTED VARIABLES**

At this point some brief recall is required of the issues and areas, which have been raised in preceding chapters and priority assigned to their inclusion in the analysis and discussion in later chapters. To begin with, theoretical considerations are important. In chapter three, the theory employed emphasized two main concepts, self-perceived risk of HIV/AIDS and social contextual factors. The emphasis in the following discussion, therefore, is to show how the selection of variables has been based on key concepts in the theory employed to understand likely determinants of adoption of safer sex practices. While the key factor is self-perceived risk of HIV/AIDS, this is often interlinked with an individual's social and economic background characteristics, which have been identified as key determinants on one's sexual behaviour. Therefore, understanding one's sexual behaviour is not only based on a single factor, but an intricate web of factors, which require examination. The examination of the above orientations requires a sufficiently broad spectrum if the existence and intensity of these orientations are to be ascertained. These are examined in three broad categories as below:

- Personal or Psychological (perceived risk of HIV/AIDS, knowledge of HIV/AIDS);
- Socio-cultural factors (ethnicity, area type, and region of residence);
- Socio-economic and political factors (in-school respondents, income, household wealth, government and non-governmental organisations'



responses), which broadly characterise young adults as the selected study population.

These are the broad categories that the analysis will take into account.

### ***Study population***

This study is aimed at comparing the likely factors determining sexual behavioural change in South Africa and Uganda, among young female adults. The principal respondents selected for this study are only young female adults (Adolescents) defined as people between ages 15 to 24. The rationale for selecting individuals between ages 15 to 24 is based on the assumption that people in this age bracket are still in a process of finding their identity and often make decisions that may cost them their lives. The definition of the word adolescence is complex and varies across social groupings. This study employs Wynn and White's definition of *an adolescent*, which does not only focus on their age, but also incorporates the broader perspective. Accordingly, the term adolescent refers to:

*Those that are trying to develop a world outlook that will carry them through life and will guide their experiences accordingly. It is a time of experimentation and trying on new roles to see which one will fit, and, reject the ones that do not fit. It is a time of financial dependency upon one's family and a time of being rebellious and independent. Among the tasks of an adolescent are sexual identity formation, making preliminary career decisions, and beginning to take responsibility for one's actions.<sup>11</sup>*

Furthermore, young female adults are at high risk of acquiring the HI-Virus as already indicated (see chapter one). The selection of this particular group is also out of the realization that these young adults may be sexually active or not, or if they are sexually active, they may not have experienced negative consequences such as acquiring HIV/AIDS, other STIs, and pregnancy. This then would mean that if these young adults adopt safer sex practices, the situation could be reversed. Finally, there

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<sup>11</sup> See Johanna Wynn and Rob White, *Rethinking Youth*. London: Sage Publications, 1997:459-460. Also see Ian Warwick and Peter Aggleton, 'Adolescents', young people and AIDS Research', in *Individual Cultural and Policy Dimensions*, eds. P. Aggleton, P. Davies, Graham Hart, London: The Falmer Press, 1990: 89-100.

are those engaging in sexual relations, not by choice but rather external factors. It is, therefore, of value to examine the likely factors for sexual behavioural change and devise some possible policy suggestions. It should be noted here that the terms, 'female adolescents' and 'young female adults' have been used interchangeably in this work and these refer to all those between the ages of 15 to 24, unless otherwise specified.

Of all the respondents in the DHS surveys, a total of 4,459 and 3,229 young female adults were selected in South Africa and Uganda respectively. Because the study focuses on the individual as the unit of analysis, a total of 7,688 will be the total sample from the two countries. It is from these individuals that information such as their background characteristics, the sexual behaviour, their sexual relations, knowledge of HIV/AIDS, sources of information and whether they are adopting any behavioural change aspects will be obtained.

### ***Selected variables***

**Dependent Variables:** The dependent variable for this analysis is sexual behavioural change measured by two variables;

- Whether the respondent had non- regular sexual partners
- Whether the respondents used a condom the last time they engaged in sexual relations

**Non-regular partners:** In order to measure the occurrence of sexual contacts outside marriage or of regular partners, careful consideration had to be given to the definition of non-regular partners. The definition of non-regular and regular sexual partners, are complex and vary between individuals. Concepts such as *boyfriend* and *spouse* which are often used to classify individual as either having regular or non-regular partners are not particularly satisfactory concepts for such a classification. To note, females can easily refer to someone as 'boyfriend' even when they have known them for such a short period of time as two to three weeks. To remedy such complexity in definitions, length of time one has known the partner needs to be considered. In this analysis, therefore, any sexual relations that occurred between partners in relationships of less than one year are regarded as having sexual relations with non-regular sexual partners. This was obtained from data by examining two variables, 'relationship to last sexual partner' and 'length of time the individual had known the

partner’. Conversely, any relationships of more than one year, or, those who had never had sexual intercourse were classified as regular partners.

**Condom use:** In the second outcome, all those that used a condom the last time they had sex were included. It should be noted that the analysis focused on only condom use with non-regular sexual partners. Counts of those who had sex, with a non-regular sexual partner and who used a condom form the basis for the variable, ‘*whether the respondent used a condom the last time they had sex with a non-regular sexual partner*’.

**Table 4.1: Percentage distribution of the dependent variables in Uganda and South Africa**  
(N=7,688)

<b>Sexual behaviour of young adults (15-24)</b>	<b>Uganda</b>	<b>South Africa</b>
<i>Type of sexual partners</i>		
Non regular sexual partners	40.2	59.7
No/one regular sexual partner	59.8	40.3
<i>Condom used last Sex</i>		
Used condom	56.8	34.4
Did not use condom	43.7	65.6
<i>*Total percent in variable</i>	<i>*100</i>	<i>*100</i>

Table 4.1 above shows the distribution of the dependent variable indicating that the distribution between those having non-regular partners and those using condoms varied between the two countries. Looking at South Africa, 59.7% were indicated to have had non-regular partners compared to 40.2% in Uganda. The table also shows that distribution of those who used condoms was higher in Uganda (59.8%) than South Africa (34.4%). These are such differences that are examined in later chapters.

**Independent Variables:**

A number of independent variables assumed to be likely determinants of one’s sexual behaviour have been examined. These are classified into different categories as shown below.

**Key Variables**

- **Self-perceived risk of HIV/AIDS:** It has been assumed that perceived risk of HIV/AIDS is likely to have an impact on young adults’ sexual behaviour. This



variable is composed of the following variables: '*Knowing some who has or died of HIV/AIDS*', and '*whether the respondent knew that a healthy person can have AIDS*', Using binary logistic regression, an examination of the probability that these factors may impact on one's sexual behaviour is carried out. However, the analysis of the variables above meant that difference levels of perception had to be obtained to illustrate precisely the difference in sexual behaviour according to level of risk perception, and to build a general picture of the level of self-perceived risk of HIV infection in the two countries. Counts were constructed of the number of 'yes' 'don't know' (DK) and of 'no' responses and then all respondents were grouped into two categories. The first ('low risk') corresponds to unequivocal evidence of all responses existing being negative plus those that did not know, while the second ('high risk') takes all the responses that were positive. Although there was a need to create a middle category, there were very few responses and hence were combined with the low risk category:

- **HIV/AIDS-related knowledge:** Knowledge of HIV/AIDS is included first as a variable that confounds self-perceived risk of HIV/AIDS and as a variable that labels and helps the individual to identify that there is indeed a problem. This includes variables such as '*whether the respondent has ever heard of HIV/AIDS, knows ways of getting HIV/AIDS, and ways of avoiding HIV/AIDS*'. From these variables, counts of 'yes' 'DK' and of 'no' were obtained, which then grouped respondents into two categories, 'respondent has knowledge' and 'respondent has no knowledge of HIV/AIDS'. Despite available research that has shown that knowledge of HIV/AIDS does not translate into behavioural change,<sup>12</sup> this variable is considered important particularly for this study, where perceived severity of HIV infection is a factor of focal interest.

#### ***Other Independent Variables***

The analysis of self-perceived risk of HIV/AIDS would be limiting if one did not take into account that these individuals have a background of interconnected factors, which also play a role in shaping sexual behaviour<sup>13</sup>. These are highlighted below.

<sup>12</sup> See P. Maharaj and Jonathan D. Tilotson, 'Barriers to HIV/AIDS protective behaviour among African adolescent males in township secondary schools in Durban South Africa', *Society in Transition* 32 1 (2001): 83-96.

<sup>13</sup> See Deon Filmer, 'The socio-economic correlates of sexual behaviour: a summary of results from an analysis of DHS data', in *Confronting AIDS, evidence from the developing world, selected background*

### ***Individual socio-economic characteristics:***

Literature has shown that one's socio-economic background determines one's sexual behaviour. Specifically, and, in relation to sexual behaviour, what has been noted indicates that young adults from less propitious backgrounds stand higher chances of engaging in sexual relations without any protection than those from better background.<sup>14</sup> In Uganda for example the issue of *sugar Daddies* has become prevalent. One of the reasons is that girls obtain gifts or money in exchange for sex, and in such cases, the issue of using a condom becomes complicated. Under socio-economic characteristics, a number of variables have been examined:

- **Age of respondent:** Respondents age (age at last birthday) as a social and biographic factor (physical growth and development) requires examination. As earlier stated in the theoretical positions of this study, depending on what age group an individual is categorised, variation in terms of behaviour is noted. Based on literature, indications are that sexual behaviour, particularly with number of partners, reduces with increase in age.<sup>15</sup> In this analysis, focus is on adolescents. This includes only those who fall in the age bracket 15 to 24. These are grouped in five-year age groups coded as '1' if 15 to 19 and '0' if 20 to 24. This is adopted to aid analysis and to ascertain whether there are differentials in sexual behaviour among young adults in the different age groups;
- **Economic status:** Since the selected study population is relatively young, their household characteristics were examined. This involved collectively analysing individuals' household wealth. (A combination of variables such as, source of

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*papers for the World Bank policy research report, confronting AIDS: public priorities in a global epidemic*, eds. Martha Ainsworth, Lieve Fransen, and Mead Over, Brussels, Belgium: European commission, 1998: 121-125.

<sup>14</sup> See Douglas Webb, *HIV and AIDS in Africa*, London: Pluto Press, 1997:131-132. See Abigail Harrison, Nonhlanla Xaba, Pinky Kunene, and Nelly Ntuli, 'Understanding young women's risk for HIV/AIDS: Adolescent sexuality and vulnerability in rural KwaZulu Natal', *Society in Transition* 31 1 (2001): 69-77. A.N. Dladla, C.A. Hiner, E. Qwana and M. Lurie, 'Speaking to rural women: the sexual partnerships of rural South African women whose partners are migrants', *Society in Transition* 32 1 (2001): 78-83. See C.J. Caldwell, 'Reasons for limited behavioural change in Sub-Saharan African AIDS epidemic, and possible future intervention strategies', in *Resistance to Behavioural Change to Reduce HIV/AIDS infection in predominantly heterosexual epidemics in third world countries*, eds. C.J. Caldwell, Pat Caldwell, John Anarfi, Kofi Awusabo-Asare, James Ntozi, I.O. Orubuloye, Australia: Health transition centre and National centre for epidemiological, 1999:241-256.

drinking water, toilet facilities, has electricity, has radio, has bicycle, type of floor, wall and roof materials, cooking fuel and depending on country, having a telephone, television, car, are included) Examining household characteristics required grouping respondents into 'low' and 'high' categories that would measure whether the respondent belongs to a low or high economic status, which meant that counts of 'yes' and of 'no' responses had to be constructed;

- **Currently working:** Secondly an examination of those individuals involved in any income generating activity was vital. (This included activities of all sorts such as selling foodstuffs, weaving baskets, doing domestic work). The inclusion of this variable was based on the need to examine whether there would be a difference in terms of sexual behaviour among those who have some income and those completely without any income;
- **Respondents still in school:** Because of the age group of the selected study population, the influence of school environment on sexual behaviour is worth examining. This is vital for a number of reasons, firstly, a number of HIV/AIDS education campaigns have had schools as their primary target population and would therefore expect that those in school are more likely to adopt safer sex practices than those out-of-school. Secondly, that school environment provides an atmosphere for easy interaction and discussion and, therefore, AIDS information can easily be put across. The inclusion of this variable is to analyse any likely relationships between behavioural change school environments. This is coded '1' if the respondents were still in school and '0' if they are not;
- **Education attainment:** The selection of respondents in-school does not easily allow examination of the significant importance of level of education. In fact, it means that those that are out-of-school but have had some education are not examined at all. To remedy this scenario, education attainment was included. Dummy variables were created for this variable and these included '1' if respondent had no education, '2' if respondent had primary level education and '3' if respondent had secondary education and above. Because importance is placed on level of education, 'no education' was made the reference category.

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<sup>15</sup> See note 13, Filmer, 'The socio-economic correlates of sexual behaviour' 121-125.



### ***Individual socio-cultural characteristics:***

Cultures are different across countries and within countries. In most cases, culture is said to promote behavioural change and in other instances hinder behavioural change. The former is noted when certain cultures discourage sex before marriage and also use certain non-penetrative ways to obtain sexual pleasure.<sup>16</sup> The latter on the other hand is a reflection of those cultures that discourage use of condoms and allow inheritance of widows, a practice that has been found to increase the risk of getting the HIV infection particularly if the deceased died of AIDS.<sup>17</sup> Such practices are specific to certain ethnic group than others. To examine the role culture plays in determining sexual behaviour among young adults, ethnic groups as a variable is used. However, because this variable is not identified in DHS in a manner that appropriately fulfils the objectives of this study, the following have been used as proxy variables to estimate the importance of socio-cultural characteristics on sexual behavioural change.

- **Language of respondent:** Using language of the respondent enables the identification of individuals in the different cultures. Careful consideration had to be made in the selection of this variable, but most importantly, the selection had to be in accordance with what factors were considered important in relation to the study objectives. From the six relatively broad categories that classify the people in South Africa, (Nguni – which includes the Zulu, Swazi, Xhosa, and the Ndebele, Sotho-Tswana, which includes the Pedi, the Tsonga and Venda, then the Afrikaans, English and the Khoisan) four categories have been formulated. The first includes all the English and Afrikaans speakers. Because KwaZulu Natal is one of the provinces with high HIV prevalence rates, and which is home to the majority population that are Zulu speakers, the need to examine any possible factors linked to sexual behaviour as one of the primary determinants of level of HIV prevalence, meant that this group had to be examined independently. Thus is categorised as ‘Nguni1’. Nguni2 contains the rest of those categorised as Nguni, while the rest fall under the ‘others’, category. In Uganda the same was explored except that the dummy variables included are the Nilotics, Bantu and the English speakers. Bantu is the largest

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<sup>16</sup> See note 14, Webb, *HIV and AIDS in Africa*, 145.

<sup>17</sup> See James, P.M. Ntonzi, *High fertility in Uganda, the role of social economic and biological factors*, Kampala: Fountain Publishers, 1995: 107.

group and these people are mainly found in areas that have been hardest hit by the epidemic such as Rakai.

- **Region of respondent:** In Uganda the regions include central, north, east and west; in South Africa however, all the 9 provinces have been examined but have been modified in accordance with the aims of this study. Areas with highest HIV prevalence are separately analysed and these include KwaZulu Natal, Mpumalanga, Gauteng, and Free State. Western cape is included but since it has the least HIV prevalence, it is, therefore, used as a reference category. The inclusion of regions as a variable raises two aspects. First, regions in countries classify and identify particular groups in society. For example, it is much easier to associate KwaZulu Natal with the Zulu culture and tradition as it is for the western part of Uganda to be associated with the Banyankole-bakiga, and Batoro speakers. So this variable contributes to the analysis of socio-cultural variables. Second, and particularly important to this study, is that the prevalence of HIV/AIDS in both Uganda and South Africa has tended to be much higher in some areas than others. For this reason, it is of fundamental importance that region be examined so as to see whether there are variations in terms of adoption of safer sex practices pertaining to different regions;
- **Area type:** There seems to be strong differences in behaviour between urban and rural dwellers. The examination of this variable raises issues that suggest no relationship between area type and socio-cultural factors. However, if one carefully examines the people in rural and urban areas, differences emerge. Rural dwellers and communities are strongly influenced by traditional authority structures and communal administration, which is not so much visible in urban areas, and this means that cultural traits are maintained in rural areas than in urban areas. It is therefore expected that rural dwellers, highly influenced by culture and tradition are less likely to use condoms or even engage in multiple sexual relations.

### SECTION C: DATA ANALYSIS PROCEDURES

Analysis was done in two phases. The first phase used the normal frequency distribution, and cross tabulation to obtain the general distribution of the selected variables. The second phase used binary logistic regression models for testing the

probability that the independent variables are likely to have on the dependent variable after control for a number of other variables assumed to affect sexual behaviour.

- **Frequency, and cross –tabulations:** Frequencies were run to determine the size of the selected categorical variables and cross tabulations used to determine the distribution of certain parameters.
- **Logistic regression:** As highlighted earlier, logistic regression models employed in this work examine the likely determinants of the adoptions of condom use, and, determinants of why an individual engages in sexual relations with non-regular sexual partners, as the sub-variables used to measure the dependent variable ‘sexual behavioural change’. Logistic regression is used because the dependent variable is a dichotomous variable.<sup>18</sup> For the first sub variable, it is coded ‘0’ if respondent had regular sexual partner or had never engaged in sexual relations, and ‘1’, if the respondent has non-regular sexual partners. In the second outcome variable, it is coded as ‘0’ if respondent did not use a condom the last time she had sex, and ‘1’ if used condom.

Since binary logistic regression modelling is one of the most suitable analyses for dichotomous dependent variables among others, it estimates the results (coefficients) in the form of odds using the formula:

$$\ln\left(\frac{p}{1-p}\right) = b_0 + b_1x_1 + \dots b_nx_n$$

Where P is the odds for the dependent variable,  $X_i$  is the independent variable ( $i=1\dots6$ ),  $b_0$  is the constant, and  $b_1\dots b_n$  are regression coefficients. This measures the likely probability that the independent variable is likely to have on the dependent variable, taking into account the standard error and controlling for other variables.

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<sup>18</sup> See Mrija J. Norusis, *SPSS advanced statistics, users guide*, Chicago, Illinois: SPSS Inc., 1990-45-63. Also see *Multiple Regression*, <http://www2.chass.ncsu.edu/garson/pa765/regression.htm>, Accessed December 2001. Also see *Log-linear, logit, and probit models*, <http://www2.chass.ncsu.edu/garson/pa765/regression.htm>, Accessed December 2001



### ***The Model***

The analytical strategy used in this work is to specify a multi-level model of macro and micro variables that are hypothesized to affect sexual behavioural change.<sup>19</sup> The model is based on the theoretical argument that while the social context provides the normative basis for sexual behaviour of individuals, there are other reinforcing changes that have taken place in this era of HIV/AIDS that have affected individual perception towards sexual behaviour. These then require the examination of both individual and social level variables. At the individual level, HIV/AIDS is increasing one's self perceived risk of HIV infection and this makes individuals more likely to accept and to desire to regulate their sexual behaviour. At the societal level, there are other factors that are also likely to affect sexual behaviour as highlighted earlier.

Having recognized that sexual behavioural change measured by number of sexual partners and condom use is dependent on a set of variables at the contextual level and a set of variables at the individual level, models (nested models) in which both contextual variables and individual-level variables can be analyzed are used.<sup>20</sup> These model fully what factors are strong determinants of sexual behavioural change from a set of variables.

Figure 4.1 below, illustrates the actual modelling strategy. In the diagram, model 1 is based on the analysis of the effect of self-perceived risk of HIV/AIDS on behavioural change, without any controls, and at a forced entry. The solid line connecting the pathway from risk perception to behavioural change as the outcome variable is shown, indicating that this model measures the effect of self-perceived risk of HIV/AIDS on the outcome variable, sexual behaviour.

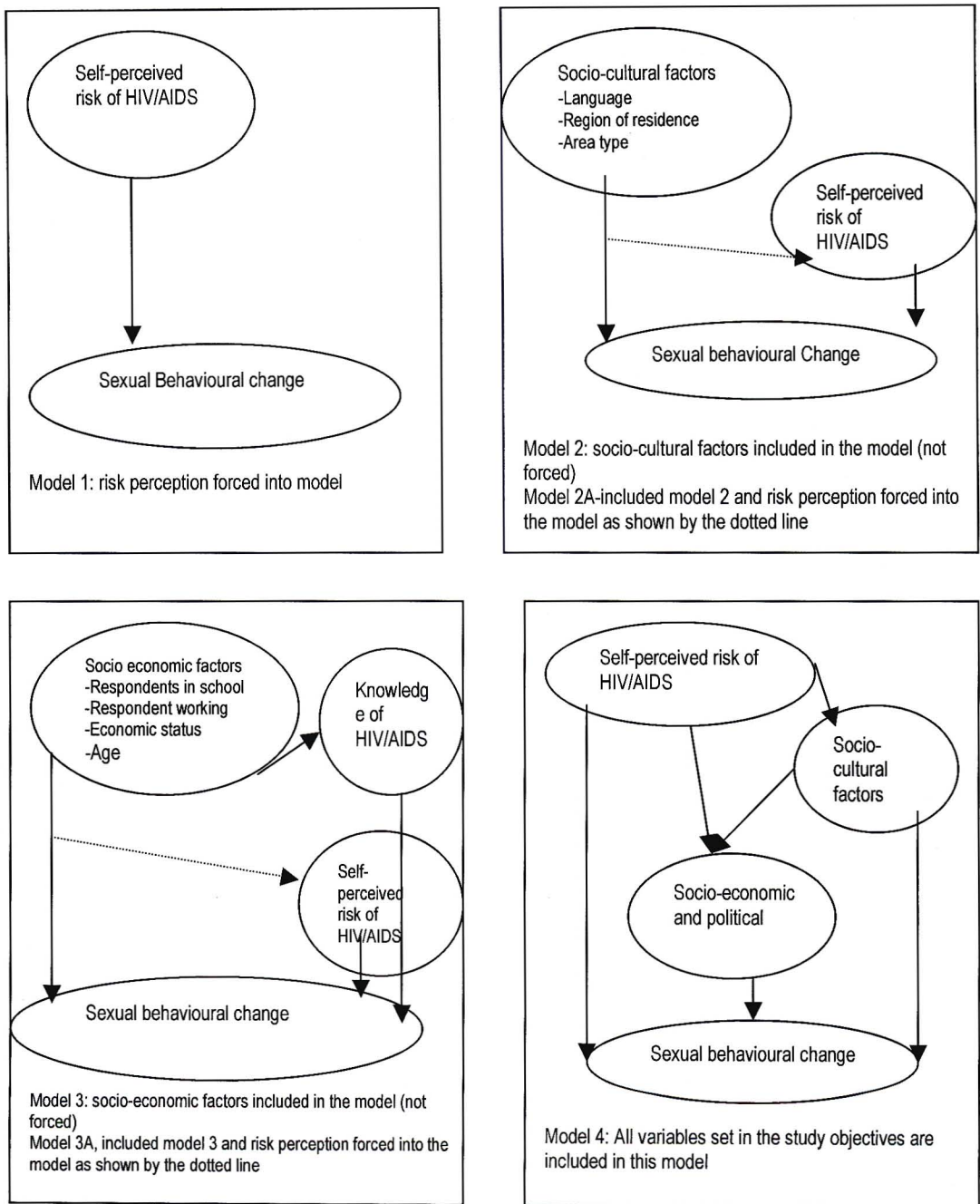
In the second model, socio-cultural factors are analysed and the inclusion of these variables in the model is aided by selecting only those variables that were theoretically assumed to be likely determinants of sexual behaviour.

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<sup>19</sup> See Aphichat Chamratithinneg, Charles Hirshman and Philip Quest, 'A multi-level analysis of the determinants of fertility in four regions of Thailand', *Asia Pacific Population Journal* 7 1 (1992): 51-64.

<sup>20</sup> See John Hobcraft and Kathleen Kiernan, 'Childhood poverty, early motherhood, and adult social exclusion', *British Journal of Sociology* 52 (2001): 494-517.

**Figure 4.1: A range of models designed to test whether HIV risk-perception affects sexual behavioural change controlling for socio-economic and cultural variables**



In order to examine the strength of HIV risk perception, HIV risk perception variables are forced into the model containing socio-cultural factors and this forms model 2A. In the third model, socio-economic factors are examined following the same procedures as in model 2 and 2A forming models 3 and 3A.

In the final conceptualisation a more parsimonious model that includes all variables as set in the principal objectives of this study are introduced. The solid lines indicate that these variables were those that were significant and strongly related to the outcome variable.

**SECTION D: BACKGROUND CHARACTERISTICS**

South Africa and Uganda have different backgrounds that can be used to understand these societies. Uganda has had a long history of instability and this has affected most of its social structure. This has led to poverty, poor infrastructure, and poor health systems. South Africa on the other hand, can be understood from its apartheid policy of governance that led to inequality and hence unequal distribution of resources. From these backgrounds, a number of social problems have emerged,<sup>21</sup> HIV/AIDS being one of them, has posed a threat to the social system of the two countries. In light of the above, a review of the background characteristics below illustrates the social standing of the two countries as at the time of data collection. It is, however, important that a mean difference of the respondents in the two countries is provided for purposes of exploring whether there are variations that may hinder the comparison of the two countries. Using respondent's current age, the mean difference of respondents in Uganda stands at 19.33, with a standard error of 5.39 while the mean difference of respondents in South Africa is 19.27 with a standard error of 4.26. In essence, despite the data being collected at different times for reasons provided earlier, there is not much variation and hence makes comparison possible. Background characteristics are further useful in putting into context the problem.

***Tabular analysis***

Table 4.2 below shows the distribution of adolescents in South Africa and Uganda in terms of their background characteristics. In the table, differences and similarities are observed among some characteristics of young female adults in the two countries. Variations are visible in the distribution of rural and urban dwellers, with more young females in urban areas in South Africa (50.5%), and more rural distribution of young females in Uganda (59.4%). Variations further emerge in questions of socio-economic characteristics based on the economic status measured by household wealth,

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<sup>21</sup> See Robert C.H. Shell, 'Half way to the holocaust: The rapidity of the HIV/AIDS in South Africa and its social economic and demographic consequences', in *The Third African Population Conference Proceedings*, Durban 6-10 December, Union for African Population Studies (UAPS) 1(1999): 155



respondent currently working, and as well as in-school, out-of-school variables. The percentage distribution in terms of household wealth is much higher in South Africa (78.3%) than it is in Uganda (39.2%).

**Table 4.2: Percent distribution of background characteristics of the respondents in South Africa and Uganda:**

<i>Background characteristics of study population</i>	<i>Uganda</i>	<i>South Africa</i>
<i>Age group of respondent</i>		
15-19	52.3	53.2
20-24	47.7	46.8
<i>Area type of respondent</i>		
Urban	40.6	50.5
Rural	59.4	49.5
<i>Respondent in school (School environment)</i>		
In-school	22.4	59.0
Out-of-school	77.6	41.0
<i>Economic status (Household characteristics)</i>		
Poor status 'low'	60.4	21.7
Not poor 'high'	39.2	78.3
<i>Education attainment</i>		
No education	9.00	1.2
Primary	59.8	19.7
Secondary/higher	30.7	79.0
<i>Respondent currently working</i>		
Working	57.8	11.8
Not working	42.2	87.2
<i>Ethnic group of respondent</i>		
English/Afrikaans	3.5	23.5
Nguni1 (Zulus)/Bantu	74.4	18.0
Nguni2 (Swazi, Ndebele, Xhosa)	25.1	28.8
Others	na	29.6
<i>Knowledge of HIV/AIDS</i>		
Less knowledgeable	16.1	4.8
More knowledgeable	83.9	90.2
<i>Region of residence of respondent</i>		
W. Cape/Central	38.5	6.8
F. State/Eastern	22.7	7.3
KZ. Natal/Northern	10.8	15.0
Gauteng/Western	28.0	7.3
Mpumalang	na	11.1
Other	na	52.5
<i>Total in each variable</i>	100	100
<i>Na= Na means value label not required in variable</i>		

Reviewing some of the variables that are more closely related to behaviour and HIV/AIDS, indications are that a considerable percentage of respondents in both Uganda and South Africa are presented with a high distribution of the level of awareness in terms of knowledge of HIV/AIDS and the ways to avoid getting the infection. Approximately an average of 80% of the respondents indicated that they have knowledge and further know the ways to avoid getting HIV/AIDS.

Considering the level of knowledge to be as high as indicated above, one would expect that the level of self-perceived risk of HIV/AIDS would also be high in both countries. However, this is not the case. In South Africa, despite the high level of AIDS-related knowledge, only 30% of young adults perceived themselves to be exposed to a high level of risk of getting the infection. On the contrary, 76% of adolescents in Uganda perceived the risk of getting HIV infection as being very high. This is illustrated in table 4.3 below.

**Table 4.3: Percentage Distribution of Self-perceived risk of HIV/AIDS in Uganda and South Africa**

<i>Level of self-perceived risk of HIV/AIDS</i>	<i>Uganda</i>	<i>South Africa</i>
Low risk	24	70
High risk	76	30
Total	100	100

Examining the level of self-perceived risk of HIV/AIDS according to age further provides a clearer indication of the differences as presented in the table blow.

**Table 4.4: Percentage Distribution of Self-perceived risk of HIV/AIDS according to age amongst young female adults: the general picture**

<i>Level of self-perceived risk of HIV/AIDS</i>	<i>Uganda</i>		<i>South Africa</i>	
	15-19 years	20-24 years	15-19 years	20-24 years
Low risk	57.7	42.3	56.9	43.1
High risk	51.1	48.9	39.6	60.4

Table 4.4 above shows the distribution of self-perceived risk of HIV/AIDS in Uganda and South Africa as the key variable. The table presents two important findings.

- It shows the differences in the level of perception among the different age groups with in a country. Results show that of the low risk sample, a higher distribution of low self-perceived risk of HIV infection was much higher among those in the age bracket of 15 to 19 than those aged 20 to 24. This is the case in both Uganda and South Africa.
- The table also shows differences between countries, and shows that of those high-risk category, a high distribution percentage was noted among those in the age bracket of 15 to 19 in Uganda (51.1%) than in South Africa (39.6%).

Focus in the next chapter, therefore, is to investigate whether these differences are observable, and whether they are closely linked to sexual behavioural change practices such as insistence on use of condoms and limiting number of sexual partners.

## **CONCLUSION**

Overall, there are marked differences and similarities between the two countries in terms of their background characteristics. Notably, there are large distribution differences in the key variable, which is the focus of this work. In the following chapters therefore, the analysis will focus on trying to estimate the probability that what is portrayed above has an influence on an individual's sexual behaviour. (Use of condoms) and (number of sexual partner)



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## **CHAPTER FIVE**

### **CONDOM USE - A SEXUAL BEHAVIOURAL MEASURE**

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#### **INTROUDUCTION**

The previous chapters have provided an extensive background, identifying the gaps existing in recent research, and provided grounds on which this analysis is based. What has become clear is the insufficiency in examination of self-perceived risk of HIV/AIDS as a likely determinant of individual sexual behaviour, particularly use of condom in this era of HIV/AIDS. This is an area on which this chapter focuses. In order to examine the significant effect of self-perceived risk of HIV/AIDS on condom use, careful consideration had to be undertaken to ensure that other factors that are likely to influence use of condom were examined as well. Thus, based on the assumption that young female adults' ability to ask their partners to use condoms during sexual intercourse is significantly enhanced by higher HIV risk perception, self-perceived risk of HIV/AIDS is examined. Secondly, and in relation to the above, an examination of social contextual factors such as age, in-school and out-of schools adolescents among others is executed as a basis for evaluating what factors strongly influence use of condoms after control for a number of factors. For a comprehensive understanding of the above, a distribution of some parameters of sexual behaviour as obtained from the data are provided along with some arguments that have recently emerged in the area of behaviour and sexual behavioural change regarding condom use. Using logistic regression models, the probability that the estimated relationship is likely to occur is tested.

**KEYWORDS:** Self-perceived risk of HIV/AIDS, condom use, non-regular sexual partner, regression modelling, and contextual factors

#### **CONDOM USE**

A number of research projects, both qualitative and quantitative have recently emerged studying sexual behaviour in general but also with the aim of evaluating

specifically in the HIV/AIDS era, whether use of condom as a preventative measure has been adopted.<sup>1</sup> In addition, increase in the prevalence of HIV and AIDS worldwide, has re-focussed recent research to explore the likely factors predisposing condom use.<sup>2</sup> The general findings from their observations present the fact that condom use is very low among regular partners. However, literature also shows that for one to insist on use of condoms is only when having sexual relations with non-regular partners.<sup>3</sup> It should be made clear that the analysis in this chapter examines use of condom with a non-regular sexual partner, within a 12 months period preceding the survey.

Recent upsurge of literature evaluating the extent to which use of condom has been adopted is not very much aimed to prevent pregnancy but rather to prevent the spread of HIV/AIDS. Further, the focus on examining use of condoms among sexually active groups is a response to HIV/AIDS educational programmes that preach the same. What is often observed shows that, knowledge does not translate into sexual behavioural change.<sup>4</sup> The above literature, however, simply examines the link between knowledge and behaviour, but what it does not examine and of value, is the nature of knowledge disseminated, and how that knowledge is interpreted across

<sup>1</sup> See Deon Filmer, 'The socio-economic correlates of sexual behaviour: a summary of results from an analysis of DHS data', in *Confronting AIDS, evidence from the developing world, selected background papers for the World Bank policy research report, confronting AIDS: public priorities in a global epidemic*, eds. Martha Ainsworth, Lieve Franssen, and Mead Over, Brussels, Belgium: European commission, 1998: 119-30. Also see P. Maharaj and Jonathan D. Tilotson, 'Barriers to HIV/AIDS protective behaviour among African adolescent males in township secondary schools in Durban South Africa', *Society in Transition* 32 1 (2001): 83-96. See C.J Caldwell, 'Reasons for limited behavioural change in Sub-Saharan African AIDS epidemic, and possible future intervention strategies', in *Resistance to Behavioural Change to Reduce HIV/AIDS infection in predominantly heterosexual epidemics in third world countries*, eds. C.J. Caldwell, Pat Caldwell, John Anarfi, Kofi Awusabo-Asare, James Ntozi, I.O. Orubuloye, Australia: Health transition centre and National centre for epidemiological, 1999:241-256.

<sup>2</sup> D. Byrne, 'Sex without contraceptives' in *Adolescent, sex and contraception*, ed. D Byrne, USA: Lawrence Erlbaum associates Inc, 1993. See also Mark Lurie, 'Circular migration and sexual networking in rural KwaZulu Natal? Implications for the spread of HIV and other sexually transmitted diseases', *Health Transition Review*, sup. 3 7 (1997): 17-21. Also see L. Gobopamang and B. Kenbetsho, 'The Socio-economic and cultural context of the spread of HIV/AIDS in Botswana', *Health Transition Review*, sup. 3 7 (1997): 97-101. Also see D. Kasprzyk, 'Factors affecting condom use and monogamy in Zimbabwe', *International Conference on AIDS* 8 (1992): 1 (Abstract no. ThD1529). See Anne Calvès, *Condom use and risk perceptions among male and female adolescents in Cameroon Qualitative Evidence from Edéa*, [www.psiwash.org/psi/research/catalog.asp](http://www.psiwash.org/psi/research/catalog.asp), February 2001: Accessed June 2002.

<sup>3</sup> See note 2, Calvès, *Condom use in Cameroon*, 2001.

<sup>4</sup> See note 1, Caldwell, 'Reasons for limited behavioural change', 243. Also see note 1 Maharaj and Tilotson, 'Barriers to HIV/AIDS protective behaviour', 87. Also see Gordon and Klouda, *Preventing a Crisis: AIDS and Family Planning Work*. England: International Planned Parenthood Federation, Jason Press, 1988. See D.T. Manning, 'College students' Knowledge and Beliefs about AIDS: Implications for Education and Prevention', *Journal of American College Health* 37 (1989): 245-259.



groups in the wider social spectrum. Studying young adults and condom use in Zimbabwe, Kadzirange examined the level of knowledge among young adults, in terms of whom they felt was at risk of getting HIV/AIDS. His findings present a list of those, young adults perceived as being at risk. This included only those having sexual relations with multiple partners, prostitutes and homosexuals.<sup>5</sup> This is a clear indication that these individuals did not perceive themselves to be at risk as long as they were not having multiple partners, nor having relations with prostitutes and/or homosexuals. However, such misconceptions appear to depend largely on how knowledge has been disseminated, regardless of who it is disseminated to and how it is understood and interpreted.

The question of perceived risk of HIV and AIDS has recently begun to be re-addressed.<sup>6</sup> The indications are that many young adults at risk of HIV/AIDS infection do not recognise their susceptibility, or even perceive the seriousness of the disease, and this consistently interferes with their willingness to adopt safer sex practices such as condom use. For example, MacDonald found that in a survey of 5,514 in selected college students in the United States, only 15% of females and 25% of males used condoms during intercourse. From his findings, he found that part of the explanation for low use of condoms was the failure of the group to recognise that they were at risk of getting HIV.<sup>7</sup>

Low condom use has in reality been associated with a number of other factors. Kasprzyk,<sup>8</sup> Wilson,<sup>9</sup> Mbizvo,<sup>10</sup> have identified themes such as 'embarrassment one

<sup>5</sup> See E. Kadzurange, 'An investigation into the knowledge, attitudes, and practices of young adults at Belvedere teachers' training college with regard to AIDS and its prevention, with special reference to condom use as a means of prevention', *MA Dissertation in adult education* 1992 (*Unpublished material*).

<sup>6</sup> See Brent Wolff and Ann K. Blanc, *The role of HIV risk perception on sexual negotiation and condom use among stable unions in high and low risk settings in Uganda*, <http://www.lshtm.ac.uk/cps/dfid/14.htm> December 2002: Accessed December 2002. Also see Andrea M. Fenaughty, A. Holly Massay and Dennis G. Fisher, *HIV risk perception, sidebar stories: National AIDS Study*, <http://www.uaa.alaska.edu/just/forum/fl14wi95/sidebar>, May 1995: Accessed June 2002. See note 2, Calvès, 'Condom use and risk in Cameroon', 2001.

<sup>7</sup> See Macdonald, 'High risk STD/HIV behaviour among college students', *Journal of the American Medical Association* 32 263 (1990): 3155-3159. Also see C.A. Varga, 'Sexual decision-making and negotiation in the midst of AIDS: youth in KwaZulu Natal, South Africa', *Health Transition Review*, sup. 3 7 (1997): 45-67.

<sup>8</sup> See note 2, Kasprzyk, 'Factors affecting condom use and monogamy in Zimbabwe', 1992:1

<sup>9</sup> See D. Wilson, 'Condom use among Zimbabwean adolescents in probation/remand homes', *AIDS Care* Volume 2 3 (1990): 267-274.

<sup>10</sup> See Michel Mbizvo, 'Condom use and the risk of HIV infection: Who is being protected?' *Central African Journal of Medicine* 11 40 (1994): 294 299.



faces in trying to obtain condoms’, ‘lack of love for partners’, and ‘lack of trust for partners’. In Uganda as well as South Africa, such themes exist as barriers for increased condom use.<sup>11</sup> Literature pertaining to adoption use of condom indicates very little change in the number of people using condoms. However, the same literature hinges its discussions on the impact of socio-economic and cultural factors as the only limiting factors for increased condom use, ignoring self-perceived risk of HIV/AIDS resulting from the increasingly rising number of people experiencing death and illness due to AIDS. It is, therefore, the concern of this chapter to try and examine any causal links emerging from such a relationship.

***Condom used according to age of young female adults***

Condom use in the era of HIV/AIDS is universally regarded as the only mechanical barrier with a viable and potentially effective preventive mechanism against the transmission of HIV/AIDS. Therefore, those who use condoms to prevent getting HIV are regarded as changing their sexual behaviour. The table below shows the proportions of young women who insisted on using condoms the last time they had sex with non-regular sexual partners in South Africa and Uganda. The table further shows this distribution among young adults in the ages 15 to 19, and 20 to 24 as a basis to capture the variations across the different ages.

***Table 5.1: Percentage distribution of young female adults who used a condom according to age in Uganda and South Africa (Percent)***

<i>Countries</i>	<i>Used condom</i>		<i>*Total percent in sample of those who used a condom only</i>
	<i>15-16</i>	<i>20-24</i>	
Uganda	65.3	34.7	*56.8
South Africa	83.3	16.7	*34.4

It is apparent from table 5.1 above, that condom use at last sex with non-regular sexual partner captured in 12 months preceding the survey varied in the two countries. What is clear is that the distribution of condom use was much higher in Uganda (56.8%) than in South Africa (34.4%). What appears similar in the two countries, however, shows that of all respondents who used a condom, majority were young adults in the ages of 15 to 19. This exploratory analysis showed that the breakdown of

<sup>11</sup> See note 1, Maharaj and Tilotson, ‘Barriers to HIV/AIDS protective behaviour’, 85.

age into two categories used here captures in an appropriate manner the variation in terms of condom use in the countries under investigation. These variations are, however, complex to explain and in this chapter, some of the likely factors will be explored. As a background to subsequent multivariate analysis, it is important also to show the proportion of females using condoms in relation to all the selected background factors. This is presented in the table below.

**Table 5.2: Proportion of young female adults who used a condom the last time had sex according to their background characteristics in Uganda and South Africa**

	Uganda	South Africa
<i>Background characteristics</i>	<i>Used condoms</i>	<i>Used condoms</i>
<i>Age group of respondent</i>		
15-19	37.1	28.6
20-24	19.7	5.80
<i>Area type of respondent</i>		
Urban	33.2	19.7
Rural	23.6	14.7
<i>Respondent still in school (School environment)</i>		
In school	15.0	27.4
Not in school	41.8	7.00
<i>Education attainment</i>		
No education	4.40	0.30
Primary	33.9	7.10
Secondary +	18.5	27.1
<i>Economic status (Household characteristics)</i>		
Poor status 'low'	26.8	1.00
Not poor 'high'	30.0	33.4
<i>Respondent currently working</i>		
Working	30.5	30.0
Not working	25.3	3.40
<i>Ethnic group of respondent</i>		
English/Afrikaans	4.90	12.2
Nguni1 (Zulus)/Bantu	39.3	5.70
Nguni2 (Swazi, Ndebele, Xhosa)/ Nilotics	13.6	7.60
Others	na	9.00
<i>Knowledge of HIV/AIDS</i>		
Knowledge	56.8	32.2
No knowledge	0.00	2.20
<i>Region of respondent</i>		
W. Cape/Central	20.7	2.80
F. State/Eastern	12.1	2.80
KZ. Natal/Northern	6.20	6.40
Gauteng/Western	17.8	2.30
Mpumalang	na	2.40
Others	na	17.7
<i>*Total percent in sample of those who used a condom</i>	56.8*	34.4*

A number of general observations emerge from table 5.2 above. The observations noted here show that the use of condoms distributed across different background

characteristics, present further variations between Uganda and South Africa, but there are some similarities:

- Such similarities show higher distribution of condom use among young adults between the ages of 15 to 19, among those with some level of education, with some household wealth, have knowledge of HIV/AIDS, live in urban areas, and among respondents engaged in any income generating activities.
- Differences on the other hand are visible among respondents still in school, showing a high distribution of condom use among in-school respondents in South Africa compared (27.4%) to their counterparts in Uganda (15.0%).

***Distribution of condom use according to self-perceived risk of HIV/AIDS***

Recent emphasis on condom use, not entirely designed to prevent pregnancy as it used to be, but rather the transmission of HIV/AIDS and other STIs, and the continued low adoption of this behaviour, has led to the need to re-examine the related intervening factors. The factors fall under a number of categories ranging from socio-cultural, economic to socio-political. However, this study explores the potential role of self-perceived risk of HIV/AIDS as the key variable predisposing sexual behavioural change as presented in the table below

***Table 5.3: Percentage distribution of condom use according to young female adults' self-perceived risk of HIV/AIDS in Uganda and South Africa***

<i>Self-perception of HIV risk</i>	<i>Used condom</i>	
	<i>Uganda</i>	<i>South Africa</i>
<i>Knows some one with or died of AIDS</i>		
Knows some one	50.8	18.4
Does not know any one	6.3	16.0
<i>Can a health person have AIDS</i>		
Health person AIDS	42.9	20.3
Health person no AIDS	13.9	14.1
*Total percent in sample of those who used a condom	*56.8	*34.4

What is immediately noticed from table 5.3 is that higher distribution of condom use is observed among those young female adults who perceived them-selves to be exposed to a high level of risk of HIV infection compared to those with low self-perceived risk. This is noted in the two countries. It is therefore imperative that further



analysis is done in order to ascertain whether these notable differences in terms of self-perceived risk of HIV/AIDS and age do indeed affect ones sexual behaviour.

### REGRESSION ANALYSIS RESULTS

The conception of this work is based on the idea that as much as social factors are important in shaping and determining an individual's sexual behaviour, perceived risk of HIV/AIDS and its impact on one's decisions regarding sexual behaviour should not be ignored. It is therefore assumed that those who perceive themselves to be exposed to a certain degree of risk of getting the infection are more likely to use condoms despite their socio-economic, and cultural backgrounds, than those whose level of perceived risk of HIV is low.

In order to examine this relationship further, a number of models are used to assess the above assumption. The tables 5.4, 5.5, 5.6 and 5.7 (below) present results from nested logistic regression models used for testing the effect of independent variables controlling for others. In table 5.4, self-perceived risk of HIV/AIDS is tested and its effect on condom use observed. Tables 5.5 and 5.6 test the *net* effect of self-perceived risk of HIV/AIDS, and at the same time test the net effect of socio-cultural and economic factors as likely factors determining use of condom. Table 5.7 tests the effect of all variables in both categories (individual - perceived risk of HIV/AIDS and social contextual factors) combined in one model and where a more parsimonious modal is obtained. This enables the examination, of which of the two categories of factors has more strength in influencing use of condom. As a starting point, individual and group models measuring self-perceived risk of HIV and AIDS are presented. Two variables (*'knowing some one has or died of HIV/AIDS' 'knows that healthy person also stands a risk of getting HIV'*), all of which measure perceived risk of HIV/AIDS are examined. Models A, and B are individual models presenting each variable, while C is a group model showing the effect of these variables controlling for other factors. This is presented in the table 5.4 below. Because this is a key variable, the examinations of each variable is necessary.

**Table 5.4: Logistic regression models testing self-perceived risk of HIV/AIDS as a determinant factor of condom use among young female adults in Uganda and South Africa**

<i>Self-perceived risk of HIV/AIDS as key variable</i>	<i>Uganda</i>			<i>South Africa</i>		
	<i>Model A</i>	<i>Model B</i>	<i>Model C</i>	<i>Model A</i>	<i>Model B</i>	<i>Model C</i>
<i>Knowing someone who has or died of HIV/AIDS</i> (Does not know person 'Low') Knows person 'High'	1.52***		1.42***	1.66***		1.29***
<i>Chances of healthy person having HIV</i> (Health person no AIDS 'Low') Health person yes AIDS 'High'		1.45***	1.44***		1.32***	1.60***
Model chi	.0020	.0001	.0000	.00000	.0001	.0000

Notes\*=P<0.1, \*\*=p<0.05, \*\*\*=p<0.01, reference category in parenthesis

Table 5.4 above examines the likely influence that HIV risk perceptions have on condom use. It shows that individual and group models are significant, and that self-perceived risk of HIV/AIDS is a likely factor determining condom use in Uganda and South Africa. This means that those young adults who perceived themselves to be exposed to high risk of getting the infection were more likely to have used condoms when having sexual relations with non-regular partners than those who thought that the risk of getting the infection were very low. This is shown by the positive correlation coefficients. This effect is re-emphasised in model C where the significance level is maintained in both countries. In general, these results attempt one to draw conclusions, which are closer to the set hypothesis and objective, that self-perceived risk of HIV/AIDS indeed affects ones sexual behaviour in both countries. In fact, what the results in South Africa indicate is that even though very few young adults perceived themselves to be at high risk of getting HIV, they were still more likely to have used condoms than those that perceived themselves to be at low risk. Before such conclusions are drawn, further analysis is done as a basis for examining the effect self-perceived risk of HIV/AIDS after controlling for other factors both socio-economic and cultural. This is illustrated in tables, 5.5, 5.6 and 5.7 below.

***Self-perceived risk of HIV/AIDS, socio-cultural variables, and use of condoms***

In table 5.5 above, self-perceived risk of HIV/AIDS is examined in relation to socio-cultural and two models are presented. Model 2 in both countries presents results

pertaining to socio-cultural factors as a basis for examining their net effect on condom use in isolation of individuals' self-perceived risk of HIV/AIDS.

**Table 5.5: Logistic regression model testing self-perceived risk of HIV/AIDS and socio-cultural factors as determinants of condom use among young female adults in Uganda and South Africa**

Self-perceived risk of HIV/AIDS as key variable	Uganda		South Africa	
	Model 2	Model 2A	Model 2	Model 2A
Knowing someone who has or died of HIV/AIDS (Does not know person 'low') Knows person 'high'		1.57**		1.59*
Chances of a healthy person getting HIV (Health person no AIDS 'low') Health person yes AIDS 'high'		1.42***		1.20**
Region of respondent				
W. Cape/Central				
F. State/Eastern	1.12	1.10	1.36***	1.75***
KZ. Natal/Northern	1.67**	1.49*	1.22***	1.80***
Gauteng/Western	2.32***	2.15***	1.72***	1.74***
Mpumalanga			0.80	0.50***
Others			0.78	0.91
Ethnic group of respondent (English/Afrikaans)			1.20***	
Nguni1 (Zulus)	1.05	0.99		
Nguni2 (Swazi, Ndebele, Xhosa)	1.02	0.959	0.38***	0.39***
Other			0.42***	0.44***
Area type of respondent (Urban)			0.36	0.34***
Rural	0.72**	0.70***	0.85**	0.78***
Model chi	.0002	.0000	.0000	.0000
Notes*=P<0.1, **=p<0.05, ***=p<0.01				
Reference category in parenthesis				
Model 2 shows only socio-cultural variables and 2A when self-perceived risk of HIV/AIDS is forced into the model.				

Model 2A on the other hand combines both individual and socio-cultural factors. The aim of grouping these factors in model 2A is three fold. First, it aims to examine the net effect of self-perceived risk of HIV/AIDS after control for a range of socio-cultural factors. Second, it examines the net effect of socio-cultural factors after control for all sub-variables measuring self-perceived risk of HIV/AIDS; and, third, it examines which of the two categories of factors offers a more plausible explanation for use of condoms, as well as exploring any possible links between socio-cultural and self-perceived risk of HIV/AIDS.

The results obtained in both models are virtually identical, even with the inclusion of self-perceived risk of HIV/AIDS at forced entry as shown in model 2A above. Examining results pertaining to the first aim, results show that in Uganda and



South Africa, self-perceived risk of HIV/AIDS remains statistically significant with a positive association, indicating that those young adults who perceived themselves to be exposed to a level of risk were more likely to have insisted on having their partner use a condom the during sexual intercourse. With inclusion of socio-cultural factors, however, the level of significance in the sub-variables measuring self-perceived risk of HIV/AIDS change slightly. Results in South Africa indicate similar findings, however, the level of significance of some cultural variables change in model 2A if compared to results in model 2.

Examining the net effect of social-cultural factors on sexual behavioural change, results show that cultural factors are also important in affecting one's sexual behaviour. The exploration of literature showed that there are visible differences in behaviour according to type of residence. Type of residence in this case was included in this analysis, as a variable used to understand further the effect socio-cultural factors have on behaviour. This was based on the understanding that rural dwellers are strongly influenced by tradition and in most cases still uphold cultural norms than urban dwellers. In that regard, therefore, were hypothesised to be less likely to have used condoms than urban dwellers. The results confirm this hypothesis and show that in both Uganda and South Africa, rural dwellers were on average 70% less likely to have used condoms in their sexual encounters than urban dwellers.

In terms of ethnic groups, results demonstrate that in South Africa, all other ethnic groups included in the analysis were less likely to use condoms compared to English and Afrikaans speaking people. This factor is not significant at all in Uganda.

Region of resident was included particularly in this study for two major reasons firstly, in Uganda as well as South Africa, the spread of HIV/AIDS is more prevalent in some areas than others as seen in previous chapters. Such a variation in terms of HIV/AIDS prevalence was assumed would lead to higher risk-perception resulting from seeing people that have or have died of AIDS. In South Africa, KwaZulu Natal and Mpumalanga were major areas of reference because of the high prevalence levels, although other regions are not ignored. In Uganda, west and in particular southwestern region was of focal interest for the same reason as highlighted for KwaZulu Natal and Mpumalanga. Results in models 2 and 2A in Uganda show that young females in the western region were in fact twice as much more likely to have

used condoms with non-regular sexual partners compared to those in the central region. In South Africa, while region as a variable appears statistically significant, results for KwaZulu Natal only becomes significant in model 2A when risk-perception variables are included in the model, showing that those respondents in the area were more likely to have used condoms. Secondly, from region of residence, one can easily associate a particular group of people and hence identify their socio-cultural traits. For this reason, region has been considered as one of the variables measuring the effect of socio-cultural factors on sexual behaviour. However deductions obtained from this variable face a number of limitations, among which include the fact that regions hold people of diverse cultures and therefore may not particularly present clear findings on which the effect of socio-cultural factors can be fully obtained.

*Self-perceived risk of HIV/AIDS, socio-economic factors and use of condoms*

Models 3 and 3A in table 5.6 (below), aim to fulfil similar objectives as those in model 2 and 2A but the differences lie in the type of variables under analysis. In model 3 and 3A, socio-economic factors rather than socio-cultural are investigated. Once again, results in Uganda show that perceived risk of HIV/AIDS is significant after controlling for other socio-economic variables. Conversely, when socio-economic variables are included in the model, perceived risk of HIV/AIDS become partially insignificant in South Africa. Results show that only those young female adults who knew that a health looking person could have AIDS, were more likely to have used condoms than those who did not know.

Similarly, recent literature regarding the relationship between use of condoms and socio-economic factors, emphasising specifically that young female adults from poor and unfavourably low backgrounds in Uganda are less likely to adopt safer sex practices seem to hold strong ground. Results from the data present similar findings. In South Africa, this association was only observed among those involved in income generating activities as described in chapter four.

**Table 5.6: Logistic regression model testing self-perceived risk of HIV/AIDS and socio-economic factors as determinants of condom use among young female adults in Uganda and South Africa**

Self-perceived risk of HIV/AIDS as key variable	Uganda		South Africa	
	Model 3	Model 3A	Model 3	Model 3A
Knowing someone who has or died of HIV/AIDS (Does not know person 'low')				
Knows person 'high'		1.57**		1.35
Chances of a healthy person getting HIV (Health person no AIDS 'low')				
Health person yes AIDS 'high'		1.50***		1.55**
Age of respondent 15-19	4.04***	3.86***	6.75***	6.70***
(20-24)				
Currently working (Respondent working)				
Respondent not working	1.07	1.07	0.45***	0.44***
Household wealth (Poor status 'low')				
Not poor 'high'	1.38**	1.37*	1.26ns	1.32
Knowledge of HIV/AIDS (Poor knowledge of AIDS)				
Good knowledge of AIDS	1.25	1.02	0.70**	0.96*
Respondents still in school Still in school	1.06	1.07	2.48***	2.46***
(Not in school)				
Education attainment (No education)				
Primary	1.15	1.22	0.67	0.89
Secondary +	1.37	1.57*	0.7s	0.75
Model chi	.0000	.0000	.0000	.0000

Notes\*=P<0.1, \*\*=p<0.05, \*\*\*=p<0.01  
Reference category in parenthesis  
Model 3 shows only socio-economic variables and 3A when self-perceived risk of HIV/AIDS is forced into the model

Furthermore, a number of other variables measuring socio-economic variables appeared significant in South Africa. Knowledge of HIV/AIDS appeared significant, but according to the odds ratios, having knowledge about AIDS does not translate into adopting safer sex practices by using condoms. Results show that those who had knowledge of HIV/AIDS were in fact less likely to have used condoms compared to those with little or no knowledge at all. However, the issue of knowledge of HIV/AIDS and sexual behaviour is quite complex and is discussed in later chapters. In Uganda, this variable was not found significant. As assumed, those young adults in-school were indicated as in a better position to use condoms, than those out-of-school. Using the odds ratios, those in school were 2.5 times more likely to use condoms than out of school adolescents.



In both countries, results showed that age has a generally important effect on condom use. Those young female adults between the ages 15 to 19 in both countries were more likely to have used a condom than those in the ages 20 to 24. This finding again tallies with available literature both in Uganda and South Africa, which show that young female adults between the ages of 15 to 19 are beginning to adopt safer sex practices in particular, use of condoms.

***Perceived risk, socio-cultural, socio- economic factors and use of condoms***

The above analysis focussed on examining the effect of socio-cultural and economic factors, and self-perceived risk of HIV/AIDS. In the final model, all three categories are combined and a parsimonious model obtained. In this model therefore, only significant variables are included. A number of variables have been removed from the model. In Uganda, they include; school environment, economic status, and ethnic group. In South Africa, these are; respondent currently working, economic status, knowing that a health person can get AIDS and education attainment. What is notable is that in South Africa, a more parsimonious model was usually found if self-perceived risk of HIV/AIDS variables were not included in the model, while in Uganda, inclusion self-perceived risk of HIV/AIDS variables strengthened a number of societal variables. Let us examine the results obtained in this model in detail.

In Uganda, indications are that:

- Those who perceive themselves to be exposed to low risk in terms of acquiring the HIV/AIDS are less likely to have used condoms compared to those who perceive themselves to be exposed to high risk. The odds ratios indicate that those who perceived themselves to be at high risk of getting the infection were on average 1.3 times more likely to have used condoms compared to those with low HIV risk perception. This was observed across all the sub variables measuring perceived risk of HIV/AIDS as a key variable. (See table 5.7 below);
- Age continued to be significant with those between the ages 15 to 19, 4.0 times more likely to have used a condom compared to those between the ages 20 to 24;
- In addition, rural dwellers were found to be less likely to have used a condom than urban dwellers;
- Those young females that were categorised as 'not poor' were more likely to use condoms than those categorised as poor.

**Table 5.7: Logistic regression parsimonious model testing significant variables as determinant factors for condom use among young female adults in Uganda and South Africa**

<i>Self-perceived risk of HIV/AIDS as key variable</i>	<i>Uganda</i>	<i>South Africa</i>
	<i>Model 4</i>	<i>Model 4</i>
<i>Knowing someone who has or died of HIV/AIDS</i>		
(Does not know person 'low')		
Knows person 'high'	1.47**	
<i>Chances of a healthy person getting HIV</i>		
(Health person no AIDS 'low')		
Health person yes AIDS 'high'	1.30**	1.25***
<i>Region of respondent</i>		
W. Cape/Central		0.89
F. State/Eastern	1.03	
KZ. Natal/Northern	1.50	1.27**
Gauteng/Western	1.98***	1.62**
Mpumalang		2.07***
Others		1.68**
<i>Ethnic group of respondent</i>		0.86
(English/Afrikaans)		
Nguni1 (Zulus)		0.23***
Nguni2 (Swazi, Ndebele, Xhosa)		0.24***
Other		0.22***
<i>Area type of respondent</i>		
(Urban)		
Rural	0.76*	0.79***
<i>Age of respondent</i>		
15-19	3.98***	6.63***
(20-24)		
<i>Currently working</i>		
(Respondent working)		
Respondent not working		0.72**
<i>Household wealth</i>		
(Poor status 'low')		
Not poor 'high'	1.3646*	
<i>Knowledge of HIV/AIDS</i>		
(Poor knowledge of AIDS)		
Good knowledge of AIDS		0.90*
<i>Respondents still in school</i>		
Still in school		
(Not in school)		3.90***
<i>Education attainment</i>		
(No education)		
Primary	1.05	
Secondary+	1.46*	
Model chi	.0000	.0000
Notes*=P<0.1, **=p<0.05, ***=p<0.01		
Reference category in parenthesis		
Model 4 tests all the variables as set in the study objectives to test the effect on sexual behaviour.		

- In relation to high prevalence rates of HIV prevalent in certain areas than others, it was assumed that people living in such areas were more likely to use condoms than those areas with low prevalence rates. As assumed, those in the southwestern parts

were indicated as more likely to have used condoms compared to those in south central

In South Africa, results presented are somewhat different from Uganda:

- To begin with, after control for a wide range of societal factors, perceived risk of HIV/AIDS as the key variable is observed to be significant only among those females who *Knew that a healthy person can have AIDS*;
- Those in-school were more likely to use condoms compared to those out-of-school. Using odds ratios, indications are that school-going female adolescents are in fact 4.0 times more likely to use condoms compared to non-school going adolescents. This is consistent in all three models, 3, 3A and in this model;
- Those with no form of income measured by respondents being involved in any paying work or income generating activity such as selling food stuffs were indicated as less likely to have used condoms than those categorised as not working;
- Knowledge related to HIV and AIDS is also significant. However, the result is not what was expected. Results show that those with a good level of knowledge are less likely to have used condoms compared to those with low knowledge of HIV/AIDS;
- A further change is noted in model 4 when compared to model 3A above, regarding region of residence and use of condom, showing that young females in KwaZulu Natal and Mpumalanga are 27% and 68% more likely to have used a condom compared to those in the Western Cape respectively;
- Results in the ethnic group variable measuring one's socio- cultural variable showed that compared to English/Afrikaans speakers the Nguni and other groups in South Africa were less likely to have used condoms.

#### **A BRIEF DISCUSSION**

A close examination of the results above based on data and the models present a number of factors found to be likely determinants of condom use. In the analysis, the aim was to achieve three goals. The first goal was to examine the effect of self-perceived risk of HIV/AIDS on condom use. The second aimed at exploring self-perceived risk of HIV/AIDS further, and in relation to other societal factors assumed, and, according to literature, to be likely determinants of condom use in order to determine which one of the two categories strongly influence use of condom. The third (see chapter seven) examined any likely relationships between self-perceived risk of HIV/AIDS and societal factors, having acknowledged that these factors are intertwined and may affect use of condoms interdependently.



### *The Effect of Self-perceived risk of HIV/AIDS*

In broad terms, the effect of self-perceived risk of HIV/AIDS on condom use has been ascertained. From the above analysis, it has been found that self-perceived risk of HIV/AIDS is a likely factor, affecting decisions young adults make regarding use of condom as presented in table 5.4, 5.6, and 5.7 above. This is, however, more pronounced in Uganda than South Africa, where all the variables measuring self-perceived risk of HIV/AIDS are presented by positive correlation coefficients. In South Africa, results remain significant only among those who knew that a health person could have AIDS, and show that compared to those who did not, those who did know were indicated as more likely to use condoms.

While not much in terms of research has emerged, focusing on the same issue, these findings tally with a few studies that have been identified. Wolff studying a group of stable unions in Uganda, found that attitudes supporting a woman's ability to ask her partner to use a condom were significantly enhanced by higher risk perception of HIV/AIDS in the setting.<sup>12</sup> This observation was noted mainly among those having sex outside their marriage. Similarly, research conducted in Zimbabwe,<sup>13</sup> and Cameroon,<sup>14</sup> show that personal HIV risk perception increased the likelihood of consistent condom use among young females and males. Conversely, gold miners in South Africa, who had unprotected sex with casual sex workers typically perceived the risk of developing AIDS some time in the future as unreal and much smaller than the large risks they faced in their jobs every day.<sup>15</sup> Over all, what these studies show is that personal risk perception of HIV/AIDS increases the likelihood of condom use. Results presented in model A for South Africa, further confirm the set assumption. Even though there were a small percent of young females that perceived themselves to be at high risk, the results present these adults as more likely to have used a condom compared to those at low risk.

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<sup>12</sup> See note 6, Wolff and Blanc, 'The role of HIV risk perception', 1.

<sup>13</sup> See note 2, Kasprzyk, 'Factors affecting condom use and monogamy in Zimbabwe', 1. Also see note 9, Wilson 'Condom use among Zimbabwean adolescents in probation/remand homes', 267-274.

<sup>14</sup> See note 2, Calvès, *Condom use and risk perceptions in Cameroon*, 2001.

<sup>15</sup> See C. Campbell, 'Migrancy, masculine identities and AIDS: The psychosocial context of HIV transmission in the South African gold mines'. *Journal of Social Science and Medicine* 45 2 (1997): 273-281. Also see Dominique Meekers, Megan Klein, 'Determinants of Condom Use among Yaounde and Doula, Cameroon', <http://www.psiwash.org/psi/research/catalog.asp?category=ERS>, February 2001: Accessed June 2002.

### *The Effects of Other Factors on Condom Use*

An examination of the above highlights the importance attached to existing social structures in society and their usefulness in understanding how they shape people's behaviour. Societal factors have further been discussed at length by a number of researchers who have demonstrated that these factors are in fact fundamental in influencing people's decisions and actions towards sexual behavioural change.<sup>16</sup> This is clearly highlighted in Uganda and South Africa.

Part of the societal factors included in the stated hypothesis suggested, firstly, that in-school young female adults were in a better position to use condoms than those out-of-school. The inclusion of this variable was based on the assumption that school-going females can readily get information about HIV/AIDS, and condoms, through reading existing material as well as interacting with different people informed about HIV/AIDS. This was further under the assumption that the school environment would enable communication freedom. In such circumstances, young females would, therefore, be more likely to adopt safer sex practices as a preventative measure than non-school-going females, and, in a completely different environment. From the analysis as presented above, results show that unlike young females in Uganda, in-school young females in South Africa were more likely to have used a condom the last time they had sexual intercourse than out-of-school adolescents. Some research that have focused on a related issue have found an association linking education with increased sexual relations with non-regular partners, but what they also found showed that use of condom was high among these groups.<sup>17</sup> One would suggest that such behaviour is of course linked to the ability of understanding serious issues that may affect one's health when they are exposed to some level of education. This further highlights the importance of AIDS education programmes, but as noted earlier, this depends on a specific category of people and how they perceive such issues.

Secondly, results show an association between condom use and economic status. Those in better economic status were in a better position to use condoms as a preventive measure. Again while the analysis proves that this factor is important, as

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<sup>16</sup> See Jeremiah M. Twa-Twa, 'The role of the environment in the sexual activity of school students in Tororo and Palisa districts in Uganda', *Health Transition Review*, sup. 3 7 (1997): 67-81. Also see Charles Crothers, 'Factors affecting HIV/AIDS in South Africa: a framework and summary,' *Society in Transition* 32 1 (2001): 5-45.

<sup>17</sup> See note 1, Filmer, 'The socio-economic correlates of sexual behaviour', 119-130.

presented by results in both countries, it makes one appreciate some of the reasons as to why sexual behavioural change is hindered by economic factors. As already mentioned, there is a whole body of literature which suggests that young girls who are poor and those from generally less propitious backgrounds are more likely to be wooed into sex without any form of protection.<sup>18</sup>

Thirdly, age of respondents was found to be one of the factors that determine one's sexual behaviour. Let us examine some possible arguments related to this factor. As discussed in earlier chapters, different age groups conceptualise issues in different ways. In both countries, we have consistently noted that those in their teenage years were on average three times more likely to have used condoms. Seemingly, this would again fall under the different needs that young adults in the different age groups have or are faced with. The needs that perhaps go as far as trying to find stable relationships, or even the failure to assert themselves regarding use of condoms as literature has shown – for example, that asking one to use a condom, would be showing mistrust to one's partner. This is however not conclusive and needs to be followed up by further research.

A number of cultural issues needed to be examined, and this compelled the examination of factors such as respondents' settings, place of residence, region, ethnicity and their effect on condom use. Most of these variables were significant in both countries as shown in tables, 5.5. However, one aspect, region of residence was important and perhaps requires some attention.

Region of residence as highlighted earlier in this study is of particular interest because the examination of the effect of AIDS varies from region to region. For example in Uganda, southwestern part was highly affected and similarly, reports have consistently presented KwaZulu Natal as a province with high prevalence of HIV/AIDS in South Africa. The question would be, whether such aspects affect people's behaviour. The examination of this factor in this respect provides arguments

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<sup>18</sup> See Douglas Webb, *HIV and AIDS in Africa*. London: Pluto Press, 1997:131-132. Also See Abigail Harrison, Nonhlanla Xaba, Pinky Kunene, and Nelly Ntuli, 'Understanding young women's risk for HIV/AIDS: Adolescent sexuality and vulnerability in rural KwaZulu Natal', *Society in Transition* 31 1 (2001): 69-77. See A.N. Dladla, C.A. Hiner, E. Qwana and M. Lurie, 'Speaking to rural women: the sexual partnerships of rural South African women whose partners are migrants', *Society in Transition* 32 1 (2001): 78-83. See note 1, Caldwell, 'Reasons for limited behavioural change', 243.



which further link region of residence and level of self-perceived risk of HIV/AIDS. Indeed, results presented show that in both cases, the highlighted high HIV prevalence areas were influential in terms of what decisions people made regarding condom use. This in a way confirms the set argument emphasising the fact that with increased levels of HIV and AIDS and the consequences are some of the factors important in understanding sexual behavioural change in the era of HIV/AIDS

### **CONCLUSION**

The broad conclusion to which this analysis is leading to in terms of evidence adduced from the analysis of the factors affecting condom use so far, suggest that predisposition to condom use is more likely when self-perceived risk of HIV/AIDS is higher, to a large extent by age, and to some extent by language, place and region of residence. Further, results show that to a certain extent school environments and economic factors do have an impact on sexual behaviour. In the following chapter, an analysis and discussion of the factors determining number of sexual partners is presented.

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**CHAPTER SIX**  
**NUMBER OF SEXUAL PARTNERS - A DETERMINANT FACTOR FOR**  
**ACQUIRING THE HIV INFECTION**

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**INTRODUCTION**

In this chapter, a navigation of likely factors that affect an individual's decisions regarding involvement with multiple sexual partners is undertaken. In particular, this chapter as in the previous chapter, examines the potential effect young adults' perceived risk of HIV/AIDS has, when negotiating how many sexual partners they should be involved with. Other factors, both socio-cultural and economic, are examined, and the strength of self-perceived risk of HIV/AIDS ascertained in relation to the other factors. Similar models as those employed in the previous chapter are employed but in this case, these examine the factors that are fundamental to decisions the youth make in relation to number of sexual partners.

**KEYWORDS:** Non-regular sexual partners, self-perceived risk of HIV/AIDS, socio-cultural, socio-economic factors

The issue of the number of sexual partners an individual is expected to have has recently come under review in the era of HIV and AIDS. The basis for this review is based on the fact that the more sexual partners one has the more the risk of acquiring the HIV infection, if no protection is devised. The debates in this arena further highlight that having non-regular sexual partners is more frequently observed among unmarried portions of the population than the married population, and have therefore named adolescents as part of this category since adolescents constitute the biggest unmarried proportion in any given society. Research conducted in Uganda on health issues highlight the same problem. In the summary report, about 97% of married woman report having no sexual partner other than their spouse in the last 12 months preceding the survey.<sup>1</sup> However, one has to note that reporting such behaviour, especially among married people does not come with ease and, therefore, the analysis is subjected to this qualification.

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<sup>1</sup> See Uganda Bureau of Statistics (UBOS) and ORC Macro, *Uganda Demographic Health Survey 2000-2001* Calverton, Maryland, USA: UBOS and ORC Macro, 2000: 183-185.

The discussions that have been put forward as in the previous chapter emphasise inhibiting contextual factors as the greatest impediment to adolescents adopting of safe sex practices. What is frequently brought forward is the impact material needs have, which ultimately determine number of sexual partners that young female adults have or may decide to have.<sup>2</sup> The discussions on the issue highlight the fact that young girls faced with pressing problems such as poverty, particularly in developing nations, are in a difficult if not impossible position to think about saving their future by reducing the risks of getting the infection through limiting number of sexual partners.<sup>3</sup> Generally, studies that have focused on similar issues demonstrate most importantly perhaps the gender-based discrepancies, socio-economic factors, and the complex matrix of social norms, as the major factors limiting women's ability to have only one partner as a measure of sexual behavioural change.<sup>4</sup> While this argument is not at all ignored, it would seem to generalise young girls as only motivated by economic needs, which in itself is problematic, ignoring the impact HIV/AIDS has had on the population in particular, those nations that have been faced with high levels of AIDS related deaths.

This dissertation offers a different view and recognizes that there is another important factor that should be taken into consideration in understanding adolescent sexual behaviour: that in as much as contextual factors are important, self-perceived risk of HIV infection is also a fundamental factor, particularly when designing behavioural interventional programmes. The assumption made is that once an individual has a high HIV risk-perception, it becomes likely that factors such as economic needs, and other social factors may become optional and ultimately change their sexual behaviour by limiting numbers of sexual partners. What that would mean is that intervention programmes need to concentrate their efforts on devising means of

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<sup>2</sup> See Douglas Webb, *HIV and AIDS in Africa*, London: Pluto Press, 1997:145. Also See Abigail Harrison, Nonhlanla Xaba, Pinky Kunene, and Nelly Ntuli, 'Understanding young women's risk for HIV/AIDS: Adolescent sexuality and vulnerability in rural KwaZulu Natal', *Society in Transition* 31 1 (2001): 69-77.

<sup>3</sup> Kevin R. O'Reilly, 'Behavioural interventions in developing Nations', in *Preventing HIV in developing countries: Biomedical and Behavioural approaches*, eds. Laura Gibney and Ralph DiClemente, London: Plenum Press, 1999: 137-154.

<sup>4</sup> See Deon Filmer, 'The socio-economic correlates of sexual behaviour: a summary of results from an analysis of DHS data', in *Confronting AIDS, evidence from the developing world, selected background papers for the World Bank policy research report, confronting AIDS: public priorities in a global epidemic*, eds. Martha Ainsworth, Lieve Franssen, and Mead Over, Brussels, Belgium: European commission, 1998:119-130.



increasing perceived risk of HIV infection among individuals and providing information on available preventive options. The analysis in the previous chapter has shown the significant importance of self-perceived risk of HIV/AIDS as a factor influencing use of condoms. What these results show, is that sexual intercourse with non-regular sexual partners is synonymous with condom use due to fear that the individual may be infected and, therefore, use condoms to avoid the infection. What remains to be ascertained in this chapter is whether the same factor (self-perceived risk of HIV/AIDS) would lead to change in sexual behaviour through reduction in the number of sexual partners as a step in the many steps towards reducing the risk of getting the infection.

The situation of non-regular sexual partners in both Uganda and South Africa from the surveys show that this behaviour is generally low. However this may indeed represent two aspects, first, that the question is vague, and that individuals only respond to it according to what they understand, and second, it raises questions of the willingness to report on such behaviour. As already highlighted, sexual behaviour is a highly sensitive and very private issue that people would not readily want to report. However, the definition of who a non-regular sexual partner is has been re-defined in this study to include the length of time these young female adults have known their partners.

What has therefore been done is that all those that had sexual relations with a person they are in a relationship with of less than one year, were considered as non-regular partners. This of course included married couples, but since the time they have known their partner is what is considered, then they would be excluded as long as they had a longer courtship period. Table 6.1 below presents the distribution of young adolescents reporting the number of sexual partners they have, in South Africa and Uganda. The table shows firstly, that slightly higher proportions of women reported having non-regular sexual partners in South Africa than in Uganda. Secondly, it shows the distribution of those reporting number of sexual partners within each country, and how that is distributed across the two age groups. Among those who reported having non-regular partners of the wider age group 15 to 24 in South Africa, a higher proportion was among those between the ages 20 to 24 (61.2%). Conversely,

teenagers (15 to 19) in Uganda reported the highest proportion of non-regular sexual behaviour (50.9%) than those aged 20 to 24.

**Table 6.1: Proportions of women reporting number of sexual partners according to age in Uganda and South Africa (Percent)**

Countries	Have non regular sexual partners		*Total percent in sample of those who reported having non regular sexual partners
	15-19	20-24	
Uganda	50.9	49.1	*40.2
South Africa	23.3	61.7	*59.7

In table 6.2 (below), the distribution of young adults reporting to have non-regular sexual partners is examined. The distribution is explored in relation to their background characteristics or issues surrounding the individual, which may influence their sexual behaviour. Clearly, the observations presented below demonstrated fundamental differences between Uganda and South Africa.

The table portrays differences of those involved in this particular sexual behaviour according to their background characteristics. Some of these differences are notable in particular variables such as area type of residence, respondents working, in-school and out-school respondents, and also according to their age group. Similarities, showing less involvement with non-regular sexual partners were also visible among those classified as poor in terms of their economic status and those who had knowledge of HIV/AIDS.

**Table 6.2: Proportions of young female adults who reported having non-regular sexual partners according to background characteristics**

<i>Background characteristics</i>	<i>Uganda</i>	<i>South Africa</i>
	<i>Non-regular sexual partners</i>	<i>Non regular sexual partners</i>
<i>Age group of respondent</i>		
15-19	30.0	22.9
20-24	10.2	36.8
<i>Area type of respondent</i>		
Urban	24.2	27.5
Rural	16.0	32.3
<i>Respondent still in school (School environment)</i>		
In-school	9.9	30.9
Not in school	53.3	28.8
<i>Education attainment</i>		
No education	4.1	1.0
Primary	24.5	11.6
Secondary +	11.6	47.1
<i>Economic status (Household wealth)</i>		
Poor status 'low'	15.7	1.4
Not poor 'high'	24.5	58.3
<i>Respondent currently working</i>		
Working	23	7.8
Not working	17.2	51.9
<i>Ethnic group of respondent</i>		
English/Afrikaans	1.7	10.6
Nguni1 (Zulus)/Bantu	20.7	11.2
Nguni2 (Swazi, Ndebele, Xhosa)/ Nilotics	10.0	19.2
Others	na	18.7
<i>Knowledge of HIV/AIDS</i>		
Knowledge		
No knowledge	34.2	57.4
<i>Region of respondent</i>	6.0	2.3
W. Cape/Central		
F. State/Eastern	16.5	3.6
KZ. Natal/Northern	8.7	3.9
Gauteng/Western	3.3	7.8
Mpumalanga	11.7	4.6
Other	na	8.2
	na	31.6
<i>*Total percent in sample of those who reported having non-regular sexual partners</i>	<i>*40.2</i>	<i>*59.7</i>

Table 6.3 (below) is a table showing those young female adults who report having multiple sexual partners in relation to their self-perceived risk of HIV/AIDS. It becomes apparent from this table that proportions of young female adults reporting their involvement with non-regular sexual partners were slightly higher in South Africa (59.7%) than in Uganda. (40.2%) The table further shows, that the distribution of those who reported having non-regular sexual partners was much higher among those whose self-perceived risk of HIV/AIDS was low, except in South Africa where an increased number of young females (40.7% out of 59.7%) who reported having



non-regular sexual partners were those who knew that a health person could have AIDS.

**Table 6.3: Percent distribution of number of sexual partners according to young female adults’ self-perceived risk of HIV/AIDS in Uganda and South Africa**

<i>Self-perception of HIV risk</i>	<i>Having non-regular sexual partners</i>	
	<i>Uganda</i>	<i>South Africa</i>
<i>Knows some one with or died of AIDS</i>		
Knows some one	15.2	10.0
Does not know any one	25.0	49.7
<i>Can a health person have AIDS</i>		
Health person AIDS	8.5	40.7
Health person no AIDS	31.7	19.0
<i>*Total percent in sample of those having non-regular sexual partners</i>	<i>*40.2</i>	<i>*59.7</i>

**LOGISTIC REGRESSION ANALYSIS**

Below is a presentation of individual models and group model, testing the likelihood that self-perceived risk of HIV/AIDS is related to sexual behaviour change, that young female adults who perceive themselves to be at high risk of getting HIV infection will change their sexual behaviour by reducing the number of sexual partners compared to those who perceive themselves to be at low risk. As a variable of focal interest, a number of models are designed specifically for this variable in order to explore its significance further.

**Table 6.4: logistic regression models for self-perceived risk of HIV/AIDS as a determinant factor in limiting number of sexual partners in Uganda and South Africa**

<i>Self-perceived risk of HIV/AIDS as key variable</i>	<i>Uganda</i>			<i>South Africa</i>		
	<i>Model A</i>	<i>Model B</i>	<i>Model C</i>	<i>Model A</i>	<i>Model B</i>	<i>Model C</i>
<i>Knowing someone who has or died of HIV/AIDS</i>						
(Does not know person ‘Low’)						
Knows person ‘High’	0.90***		0.72***	0.78***		0.76***
<i>Chances of healthy person getting HIV</i>						
(Health person no AIDS ‘Low’)						
Health person yes AIDS ‘High’		0.57***	0.40***		0.80***	0.81***
Model chi	.0000	.0025	.0000	.1320	.1577	.0842

Notes\*=P<0.1, \*\*=p<0.05, \*\*\*=p<0.01, reference category in parenthesis

The results from the table above generally show that self-perceived risk of HIV/AIDS has an impact on the decisions one makes with regard to the number of sexual

partners. The individual models presented above show a strong significant effect of perceived risk of HIV infection on number of sexual partners as the outcome variable. More specifically, the table shows that young females in Uganda and South Africa who knew of someone with or who had died of AIDS were more likely to limit the number of sexual encounters as a preventive measure against acquiring the infection. From the above table, the variable is significant and presented by negative correlation coefficients. Further exploration of the other variable measuring self-perceived risk of HIV/AIDS presents similar results in both countries. Model C is a group model. Despite this model containing two parameters than earlier models, the results are virtually identical to those in models A, and B.

Although this model shows that self-perceived risk of HIV/AIDS variables were all significant, it hardly comprises a rigorous basis for testing whether self-perceived risk of HIV/AIDS is associated with reducing number of sexual partners as a measure to reduce the risk of getting HIV/AIDS. In order to assess this further, several alternative models, which include other social factors, are considered. These include socio-cultural (table 6.5) as well as socio-economic (table 6.6). These are presented below.

**Table 6.5: Logistic regression model testing self-perceived risk of HIV/AIDS and socio-cultural factors as determinants for limiting number of sexual partners among young female adults in Uganda and South Africa**

<i>Self-perceived risk of HIV/AIDS as key variable</i>	<i>Uganda</i>		<i>South Africa</i>	
	<i>Model 2</i>	<i>Model 2A</i>	<i>Model 2</i>	<i>Model 2A</i>
<i>Knowing someone who has or died of HIV/AIDS</i>				
(Does not know person 'low')				0.89
Knows person 'high'		0.99**		
<i>Chances of a healthy person getting HIV</i>				
(Health person no AIDS 'low')				0.89
Health person yes AIDS 'high'		1.36		
<i>Region of respondent</i>				
W. Cape/Central	5.95***	5.91***	0.18***	0.15***
F. State/Eastern	3.62***	3.03***	0.14***	0.15***
KZ. Natal/Northern	3.51***	3.44***	0.14***	0.12***
Gauteng/Western			0.01***	0.01***
Mpumalanga			0.14***	0.13***
Other			0.25***	0.20***
<i>Ethnic group of respondent</i>				
(English/Afrikaans)				
Nguni1 (Zulus)	2.01	1.98	7.78***	8.88***
Nguni2 (Swazi, Ndebele, Xhosa)	1.30	1.30	2.88***	3.28***
Other			2.98***	3.14***
<i>Area type of respondent</i>				
(Urban)				
Rural	0.63**	0.61**	0.49***	0.52***
Model chi	.0000	.0000	.0000	.0000
Notes*=P<0.1, **=p<0.05, ***=p<0.01				
Reference category in parenthesis				
Model 2 shows only socio-cultural variables and 2A shows results when self-perceived risk of HIV/AIDS variables are added in the model				



In the table above, model 2 in both countries presents results pertaining to socio-cultural factors as a basis for examining their net effect on regular partner behaviour in isolation of individuals' self-perceived risk of HIV/AIDS. Model 2A on the other hand combines both individual and socio-cultural factors. The aim of grouping these factors in model 2A is three fold. First, it aims to examine the net effect of self-perceived risk of HIV/AIDS after control for a range of socio-cultural factors. Second, it examines the net effect of socio-cultural factors after control for all sub-variables measuring self-perceived risk of HIV/AIDS; and, third, it examines which of the two categories of factors offers a more plausible explanation for having non-regular sexual partners. Results are discussed in the sections that follow

Model 3 and 3A examined in table 6.6 below employs similar aims as those in 2 and 2A above but focuses on socio-economic factors

**Table 6.6: Logistic regression model testing self-perceived risk of HIV/AIDS and socio-economic factors as determinants for limiting number of sexual partners among young female adults in Uganda and South Africa**

Self-perceived risk of HIV/AIDS as key variable	Uganda		South Africa	
	Model 3	Model 3A	Model 3	Model 3A
<i>Knowing someone who has or died of HIV/AIDS</i>				
(Does not know person 'low')				
Knows person 'high'		0.09***		0.75*
<i>Chances of a healthy person getting HIV</i>				
(Health person no AIDS 'low')				
Health person yes AIDS 'high'		0.54**		1.22
<i>Age of respondent</i>				
15-19	9.47***	9.13***	1.47***	1.45***
(20-24)				
<i>Currently working</i>				
(Respondent working)				
Respondent not working	1.16ns	1.45*	0.82	0.86
<i>Household wealth</i>				
(Poor status 'low')				
Not poor 'high'	2.57***	2.38***	0.87	0.94
<i>Knowledge of HIV/AIDS</i>				
(Poor knowledge of AIDS)				
Good knowledge of AIDS	1.03	0.95	0.64**	0.15***
<i>Respondents still in school</i>				
Still in school	1.51	0.99	1.23	1.23
(Not in school)				
<i>Education attainment</i>				
(No education)				
Primary	0.77	0.79	0.84	0.81
Secondary+	0.70	0.69	1.32	1.10
Model chi	.0000	.0003	.0000	.0000
Notes*=P<0.1, **=p<0.05, ***=p<0.01				
Reference category in parenthesis				
Model 4 shows all the variables in the set objectives put into the model.				



In the final model, a number of factors both social and individual are examined. As a parsimonious model, variables that were not significant were left out of the model. Results are presented below.

**Table 6.7: Logistic regression parsimonious model testing significant variables as determinant factors for limiting number of partners among young female adults in Uganda and South Africa**

<i>Self-perceived risk of HIV/AIDS as key variable</i>	<i>Uganda</i>	<i>South Africa</i>
	<i>Model 4</i>	<i>Model 4</i>
<i>Knowing someone who has or died of HIV/AIDS</i> (Does not know person 'low')		
Knows person 'high'	0.50***	
<i>Chances of a healthy person getting HIV</i> (Health person no AIDS 'low')		
Health person yes AIDS 'high'	0.99**	0.84**
<i>Region of respondent</i>		
W. Cape/Central		
F. State/Eastern	5.61***	0.15***
KZ. Natal/Northern	7.60***	0.19***
Gauteng/Western	3.04***	0.14***
Mpumalang		0.01***
Other		0.13***
<i>Ethnic group of respondent</i>		0.22***
(English/Afrikaans)		
Nguni1 (Zulus)		9.39***
Nguni2 (Swazi, Ndebele, Xhosa)		3.12***
Other		2.93***
<i>Area type of respondent</i>		
(Urban)		
Rural	0.76*	0.79***
<i>Age of respondent</i>		
15-19	9.11****	0.51***
(20-24)		
<i>Currently working</i>		
(Respondent working)		
Respondent not working	2.02***	1.44***
<i>Household wealth</i>		
(Poor status 'low')		
Not poor 'high'		
<i>Knowledge of HIV/AIDS</i>		
(Poor knowledge of AIDS)		
Good knowledge of AIDS	0.62**	0.12***
<i>Respondents still in school</i>		
Still in school		1.31*
(Not in school)		
<i>Education attainment</i>		
(No education)		
Primary		
Secondary+		
Model chi	.0000	.0000
Notes*=P<0.1, **=p<0.05, ***=p<0.01		
Reference category in parenthesis		
Model 4 shows all the variables in the set objectives put into the model.		

### ***The Effect of Self-perceived risk of HIV/AIDS***

Having demonstrated that self-perceived risk of HIV/AIDS derived from two variables measuring risk have significant associations, an examination of the magnitude of the net effect of risk perception is conducted after controls for other societal factors highlighted above. Analysing risk perception shows that those who perceive themselves to be at high risk are more likely to reduce the number of sexual partners. Results show that in Uganda and South Africa, the likelihood of those with low HIV risk-perception reducing the number of sexual partners is much lower than those at high risk unless their attitudes towards HIV risk change. (See table 6.4 above)

Exploring this factor further, through the addition of societal factors that are likely to have an impact on individual's decisions regarding number of sexual partners as presented in model 2A and model 3A in tables 6.5 and 6.6 above, it becomes apparent that an individual's HIV risk-perception is a factor not to be ignored. Even though changes are noted in some of the factors measuring risk perception, there are those that remain significant and hence important. In model 2A for example, self-perceived risk of HIV/AIDS is significant, only in Uganda. Results also show that of the two variables measuring risk, only those who felt at risk of the HIV infection through knowing someone who has or has died of AIDS were indicated as more likely to reduce the number of sexual encounters than those who did not. This is observed after controlling for cultural determinants of sexual behavioural change. This confirms the stated assumption that as people begin to realise the dangers related to HIV/AIDS through first hand information, then the more they are likely to re-think their sexual behaviour. And since HIV/AIDS progressed much faster in Uganda than it did in South Africa, which also means that a number of people would have experienced deaths due to AIDS, more people would perceive themselves to be at risk and hence the need to change their behaviour.

The strength of individual self-perceived risk of HIV/AIDS is further noted in model 3A after control for other socio-economic factors. While in South Africa, the results in model 3 for risk perception remain virtually identical as those in model 2A, a remarkable change is noted in Uganda, with all two variables measuring self-perceived risk of HIV/AIDS becoming significant, showing that reduction in number of partners is synonymous with high level of risk-perception.

The magnitude of the net effect of self-perception of risk of getting HIV is finally tested when all significant variables, both socio-cultural and economic are modelled collectively. HIV Risk perception remains significant in both countries showing that those 'who knew some one with AIDS or had died of AIDS', were less likely to have non-regular sexual partners. In Uganda alone, knowing that a health person could get AIDS also appeared significant, with a positive correlation showing that a reduction in number of partners was more likely among those with a high level self-perceived risk of HIV infection than those with low level.

So what would this mean? While recent research in the area of sexual behavioural change have tended to focus on number of constraints that are in most cases a creation of society, and which are beyond an individual's control, the argument that has been raised and examined, suggests that society, in particular contemporary society, has been faced with challenges in the area of health, which have led to the formation of new perceptions and these perceptions in one way or another affect the choices people make in other aspects of life but more specifically sexual choices. This is in fact related to what skinner advanced in the early 1970's, that the consequences of certain behavioural patterns may indeed be the cause of its change. In this study, one aspect that has been named as having created changes that have led and may lead to consequences of un-measurable cost is HIV/AIDS. After this rigorous analysis of self-perceived risk of HIV/AIDS and how it may determine one's sexual behaviour in the face of HIV and AIDS, it becomes entirely plausible and indeed probable, that self-perceived risk of HIV/AIDS is fairly directly linked to decisions young female adults make regarding limiting number of sexual partners. This has not been a perfect association but indications provide good grounds on which this factor is considered, and of course illustrates the importance of other interceding factors, which partly determine this relationship.

### ***The Effect of Other Societal Factors***

In this section, an examination of the effect of other social factors is considered. As discussed in earlier chapters, sexual behaviour engages a number of factors and is not determined by a single factor. It is argued that human beings shape society in which they live and are in turn shaped by society. Factors that were found significant are discussed below.



- **Knowledge regarding HIV/AIDS**

This variable has been analysed under socio-economic factors but has been given special attention due to a number of reasons, firstly, there is need to distinguish between knowledge of HIV/AIDS and risk perception. While the two have close connections, and knowledge can translate into and lead to increased self-perceived risk of HIV/AIDS, it does not necessarily mean that knowledge would automatically translate into risk perception. Therefore, caution has to be taken in the interpretation and understanding of HIV/AIDS related-knowledge. In this case, it refers to general knowledge regarding HIV prevention, acquisition, transmission and its consequences.<sup>5</sup> For a example, when one examines level of knowledge in the two countries as obtained from the data, one notes that almost 90% of the population are aware of HIV/AIDS, but this does not mean that 90% of the population perceived themselves to be at high risk of getting the infection. This was clearly illustrated in chapter four.

In addition, literature worldwide has it that knowledge of HIV/AIDS today is to a large extent on a better footing than it was a decade ago. This is also obtained from the data in both countries, which clearly demonstrated that the majority of the people knew the basics of HIV/AIDS. What it is, how it is transmitted and perhaps to some extent, ways to avoid getting infected. On the other hand, there still prevails a lot of myth among some communities in the different societies surrounding the pandemic especially around the cure of HIV/AIDS.<sup>6</sup> Therefore, such myths prevent people from realising the level of risk they are exposed to and hence this indisputably prevents them from changing their sexual behaviour.

Secondly, from both data sets used, the respondents were asked several questions in relation to the AIDS epidemic. One of the main questions asked was whether they had heard of HIV/AIDS and from where that information was obtained. From the analysis, it became clear that the majority of the people were aware of it. In Uganda, all the respondents had heard of HIV/AIDS (100%), and not only had they heard about it, but were to a large extent knowledgeable about the problem. In South Africa

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<sup>5</sup> See C.A. Varga, 'Sexual decision-making and negotiation in the midst of AIDS: youth in KwaZulu Natal' *Health Transition Review*, sup. 3 7 (1997): 48-51. See Alan Whiteside and Clem. Sunter, *AIDS 2000: The challenge for South Africa*. Cape Town: Human and Rousseau Tafelberg ltd, 2000: 58.

95% of the respondents also had heard of AIDS. Regression results further show that there is an association between knowledge of HIV/AIDS and reduction in number of partners, but presents an inverse relationship indicating that those with knowledge were less likely to change their behaviour. While literature worldwide presents similar views that knowledge does not lead to behavioural change, caution has to be taken in understanding this finding. I argue that knowledge has some impact on behaviour and indicate that it might well be an analytical problem that produces results, which lean towards the argument that knowledge does not lead to behavioural change, especially those results that are quantitative in nature. Most notably, for regression to provide accurate results, the variable has to have at least two categories and of which there must be cases. Now, the analysis of knowledge presents only one category, since in most countries, virtually everyone reports having some knowledge. This indeed affects the results obtained since there is no second category to compare with. Therefore, knowledge of HIV/AIDS needs to be carefully studied and examined.

- **Socio-cultural factors**

The results presented in the above models relating to socio-cultural factors show that:

In both countries, rural dwellers were less likely to be involved in multiple relationships compared to urban dwellers

Using ethnic group as the other proxy variable for socio-culture, results show that, compared to English/Afrikaans speaking people, the Nguni, and other ethnic groups in South Africa, were on average 3 times more likely to have non-regular sexual partners. The results presented in model 4 pertaining to ethnic groups as a socio-cultural variable are virtually identical to those presented in model 2 and 2A

In relation to the above, region of residence is measured as a variable that further identifies one's culture. More importantly, the nature of this study requires one to look at different regions particularly because different regions have been affected differently in terms of the HIV/AIDS pandemic and is consequently fundamental to examine any variations in terms of behaviour.

What is observed in Uganda nullifies the set hypothesis. Results here indicate that compared to the central region, people in the east, north, and west were on average, 3 times more likely to have non-regular sexual partners. Results for South Africa present

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<sup>6</sup> See Suzanne L. Madlala, 'On the virgin cleansing myth: Gendered bodies, AIDS and ethno medicine',

findings that lean towards the assumption made. They show that dwellers in KwaZulu Natal and Mpumalanga as areas of focal interest were indeed less likely to have multiple sexual relations compared to dwellers in the Western Cape.

In view of the above, results in South Africa present what was expected. That young adults who reside in areas heavily affected by the pandemic would change their sexual behaviour by limiting number of partners to avoid getting the infection.

- **Socio-economic factors**

Presented in model 3 to 3A and then model 4, which combines all the three sets of factors and, therefore, looks at the net effect of each set, as well as the relationship between socio-cultural, socio-economic and individual HIV risk perception. The analysis of the effect of socio-economic factors from both models provide results as follows:

- Age as a biographic factor was significant presenting young females in their teenage years as in fact more likely to have non-regular partners in Uganda and South Africa. This was consistent in all models, 3 to 3A and model 4;
- What is statistically significant in Uganda is that young females involved in any income generating activity (which was included as a proxy for socio-economic factors) are more likely to have non-regular partners. The results become stronger after control for other risk perception factors showing that those engaged in any income generating activity were twice as likely to have non-regular sexual partners;
- Further results in South Africa show that those in school were on average 1.3 times more likely to have non-regular sexual partners;

The above presents a clear divide between Uganda and South Africa in terms of what factors are likely determinants of the choices individuals make regarding the number of sexual partners. The difference is that in Uganda, while other societal factors are important, self-perceived risk of HIV/AIDS is also important. On the other hand, in South Africa, this choice appears to be highly determined mainly by cultural and economic factors. Self-perception of risk becomes weaker in relation to societal factors.



## CONCLUSION

The results from this analysis can be summarised in three main ways. First, the results present a clear divide between Uganda and South Africa in terms of what factors influence sexual behaviour, showing self-perceived risk of HIV/AIDS taking more of a centre stage in Uganda than in South Africa. What the general conclusion suggests is that those young adults with high HIV risk-perceptions are more likely to change their sexual behaviour. In South Africa, however, even though the importance of risk perception can be noted, other socio-cultural and economic factors appear to have a stronger effect on one's sexual behaviour, which might be expected since young female adults' self-perceived risk of HIV/AIDS is still low. Second, there are similarities that can be observed in terms of what factors affect sexual behaviour in both countries. Notably, age of respondents has consistently shown that teenagers in both Uganda and South Africa are more likely to engage in multiple sexual relations than those in the 20 to 24. Third, due to the rate of HIV/AIDS in South Africa at the moment, and following the results presented on risk-perceptions regarding HIV and AIDS, it would appear that even though the adverse effects of high rates does affect decisions young adults make regarding number of partners, it is not strong a factor compared to other societal factors.

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## CHAPTER SEVEN

### SEXUAL BEHAVIOURAL CHANGE-LIKELY DETERMINANTS IN THE SEXUAL NEGOTIATION PROCESS AMONG YOUNG FEMALE ADULTS IN UGANDA AND SOUTH AFRICA

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#### INTRODUCTION

This chapter addresses three fundamental aspects central to this study. First, it coalesces into one the work done in chapter five and six through discussion of the major findings of the issues surrounding decision-making and negotiations that young adults have to tackle regarding sexual matters, as obtained from the analysis. Second, it provides an exploration on which differentials in the determinants of sexual behaviour in Uganda and South Africa can be understood. Third, because individual and society are intertwined, this chapter explores the link that exists between societal factors and individual factors (self-perception of HIV risk) in the era of HIV/AIDS as part of the objectives for this study.

**KEYWORDS:** Condom use, non-regular sexual partners, self-perception of HIV risk, socio-economic, and cultural factors

‘Use of condoms’ and ‘number of sexual partners’, are issues that have raised considerable discussions and have in the last two decades become universally considered as possible preventative measures for the spread of HIV infection.<sup>1</sup> While these two can be discussed as separate or independent sexual behavioural practices, they are also intertwined and sometimes one influences the other. Existing literature pertaining to these two aspects put forward the argument that condom use and existence of non-regular sexual partners are actually inter-linked; that individuals only

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<sup>1</sup> See Deon Filmer, ‘The socio-economic correlates of sexual behaviour: a summary of results from an analysis of DHS data’, in *Confronting AIDS, evidence from the developing world, selected background papers for the World Bank policy research report, confronting AIDS: public priorities in a global epidemic*, eds. Martha Ainsworth, Lieve Franssen, and Mead Over, Brussels, Belgium: European commission, 1998: 119-30. Also See A.N. Dladla, C.A. Hiner, E. Qwana and M. Lurie, ‘Speaking to rural women: the sexual partnerships of rural South African women whose partners are migrants’, *Society in Transition* 32 1 (2001): 78-83. Also See C.J. Caldwell, ‘Reasons for limited behavioural change in Sub-Saharan African AIDS epidemic, and possible future intervention strategies’, in *Resistance to Behavioural Change to Reduce HIV/AIDS infection in predominantly heterosexual epidemics in third world countries*, eds. C.J. Caldwell, Pat Caldwell, John Anarfi, Kofi Awusabo-Asare, James Ntozi and I.O. Orubuloye, Australia: Health transition centre and National centre for epidemiological, 1999:241-256.

use condoms with non-regular sexual partners and this behaviour is least put into effect with regular sexual partners.<sup>2</sup> This has been discussed in chapter five. If we, however, consider that the two are actually distinct sexual behaviours, then we realise that the two have different predisposing factors.<sup>3</sup> In order to come to a conclusion consolidating these factors, as general factors determining sexual behavioural change, the determinants of condom use and those for limiting number of sexual partners have to be collectively considered.

In chapter two, a discussion as to why self-perceived risk of HIV/AIDS should be examined has been provided, by locating the individual in an HIV/AIDS context, which as has been suggested is responsible for shaping individual risk-perceptions regarding acquiring HIV. All through, the argument has been that what is actually experienced (morbidity and mortality due to AIDS, educational programmes resulting from increased HIV/AIDS prevalence) provides the individual with all potentials to change their sexual behaviour. Supported by the social learning theory, which emphasised the view that behavioural consequences of those around us may shape our future behaviour,<sup>4</sup> the concept of self-perceived risk of HIV infection was examined. In chapter three, this approach is considered but due to the realisation that an individual, in addition to being located in the context mentioned above, there are other social and environmental factors that do shape behaviour. These also interfere with how one's level of perceived-risk of HIV/AIDS is constructed and formulated (for instance, depending on where one lives, one may never get information on HIV/AIDS); and, second, even when the individual has high risk perceptions of acquiring HIV, they may fail to adopt safe sex practices as a result of these socio-economic, and cultural factors.

A closer exploration of the above factors leads to one general conclusion, that individual risk-perceptions and the surrounding factors are all important aspects that

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<sup>2</sup> See note 1, Filmer, 'The socio-economic correlates of sexual behaviour', 111-129.

<sup>3</sup> Also see Jean Claude Deheneffe, Michel Careäl and Amadou Noubissi, 'Socio-economic determinants of sexual behaviour and condom use', in *Confronting AIDS, evidence from the developing world, selected background papers for the World Bank policy research report, confronting AIDS: public priorities in a global epidemic*, eds. Martha Ainsworth, Lieve Fransen, and Mead Over, Brussels, Belgium: European commission, 1998: 131-147.

<sup>4</sup> See Burrhus F. Skinner, the 'Self Determination' of conduct', in *Behaviour change through self-control*, ed. Marvin R. Goldfield, New York: Stony Brook, 1972:60. Also see The American Sociological Association (ASA), 'Theoretical perspectives: Social learning theory', in *Society today*, ed. Cynthia Farden, Del Mer California: CRM Books, 1973:66-67.

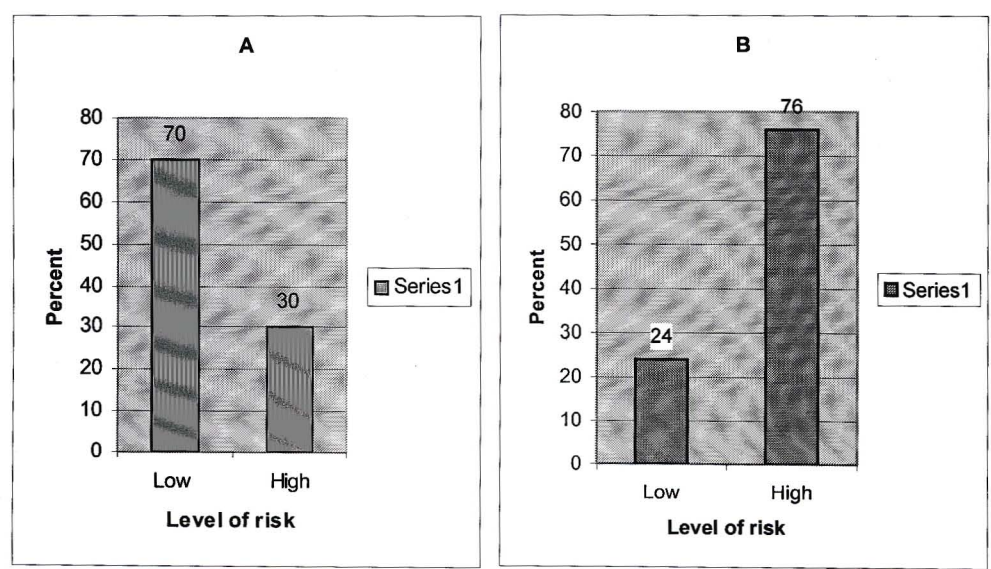


circumscribe one’s behaviour and should all be taken into account when trying to understand behavioural aspects and in this case, sexual behaviour. These are discussed below.

**Self-perceived risk of HIV/AIDS and sexual behavioural change**

The analysis of the determinants of use of condoms, and number of sexual partners has provided useful insights into the factors that are considered as likely predisposing factors of sexual behavioural change. One of the aims and key assumptions to this study, however, focussed on the effect of self-perceived risk of HIV/AIDS. As a variable of focal interest, it therefore takes the foreground. From the analysis, it was clearly seen that more young female adults in Uganda perceived themselves to be exposed to a certain degree of risk of getting the HIV infection than their counterparts in South Africa. That over 70% of young females in Uganda perceived the risk of getting HIV to be very high than those adolescents in South Africa. This is clearly illustrated in figure 8.1 below.

*Figure 8.1: Graphs showing individual HIV risk perception in South Africa (A) and Uganda (B)*



In relation to the above findings, it was therefore hypothesised that such differences in levels of risk perception would have an impact on sexual behaviour, particularly in Uganda than in South Africa. Using logistic regression analysis, it became clear that self-perceived risk of HIV/AIDS is a likely factor determining sexual behaviour. More specifically that high HIV risk-perception is directly related to sexual

behavioural change. This was consistently observed as significant, particularly in individual models. While not much in terms of research has emerged focusing on this aspect, these findings tally with a few studies that have been identified. Wolff studying a group of stable unions in Uganda found that condom use was high among those whose perception of HIV risk was high.<sup>5</sup> This observation was noted mainly among those having sex outside their marriage. Similarly research conducted in Zimbabwe,<sup>6</sup> and Cameroon,<sup>7</sup> show that personal HIV risk perception increased the likelihood of consistent condom use among young females and males.

Conversely, gold miners in South Africa, who had unprotected sex with casual sex workers typically perceived the risk of developing AIDS some time in the future as less real and thus much smaller than the large risks they faced in their jobs every day.<sup>8</sup> What this research illustrates is that personal risk perception increased the likelihood of adopting safer sex practices and hence sexual behavioural change. It should be noted here that even though self-perceived risk of HIV/AIDS in South Africa was low to a certain extent, significant responses due to risk perceptions are notable. To comment on that aspect further, Varga conducted a study in 1997, with the aim to explore the choices made by young men and women regarding sexual activity and the extent to which this is influenced by HIV/AIDS. This study indicated that even though young adults had heard of HIV/AIDS, they did not believe that it existed since they had never seen anyone sick or die of 'it'. Naturally, the findings from Varga's work showed that self-perceived risk of HIV/AIDS did not exist and, therefore, AIDS had no influence on sexual behaviour at all.<sup>9</sup> She again conducted a

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<sup>5</sup> See Brent Wolff and Ann K. Blanc, *The role of HIV risk perception on sexual negotiation and condom use among stable unions in high and low risk settings in Uganda*, <http://www.lshtm.ac.uk/cps/dfid/14.htm> December 2002: Accessed December 2002.

<sup>6</sup> See E. Kadzurangye, 'An investigation into the knowledge, attitudes, and practices of young adults at Belvedere teachers' training college with regard to AIDS and its prevention, with special reference to condom use as a means of prevention', *MA Dissertation in adult education 1992 (Unpublished material)*. Also see D. Kasprzyk, 'Factors affecting condom use and monogamy in Zimbabwe', *International Conference on AIDS* 8 (1992): 1 (Abstract no. ThD1529).

<sup>7</sup> See Anne Calvès, *Condom use and risk perceptions among male and female adolescents in Cameroon Qualitative Evidence from Edéa*, [www.psiwash.org/psi/research/catalog.asp](http://www.psiwash.org/psi/research/catalog.asp), February 2001: Accessed June 2002.

<sup>8</sup> See Campbell, C. 'Migrancy, masculine identities and AIDS: The psychosocial context of HIV transmission in the South African gold mines', *Journal of Social Science and Medicine* 45 (2) 1997: 273-281. Also see Dominique Meekers, Megan Klein, *Determinants of condom use among Yaounde and Doula, Cameroon*, <http://www.psiwash.org/psi/research/catalog.asp?category=ERS>, February 2001: Accessed June 2002.

<sup>9</sup> See C.A Varga, 'Sexual decision-making and negotiation in the midst of AIDS: youth in KwaZulu Natal', *Health Transition Review*, sup.3 7 (1997): 48-57.



study in 1999, of similar aspects and found that two years later, self-perceived risk of HIV infection was growing in South Africa. As a consequence, young people were now questioning gender stereotypes leading to unsafe sexual behaviour. In fact, one of the respondents was quoted to have said that: 'I think people should use condoms, because people are dying of AIDS'.<sup>10</sup> This clearly demonstrates and is in line with the hypothesis of this study, which suggests that the increasingly rising level of HIV/AIDS prevalence and its consequences change people's perceptions towards the risk of getting HIV infection, and this in turn influences their sexual behaviour. Results presented in model A for South Africa further confirm this hypothesis, despite the low levels of HIV risk perception among these young females. Results presented demonstrate that these adults were indeed more likely to have changed their behaviour by either using a condom or limiting numbers of sexual partners, compared to those at low risk.

### **The effects of societal factors on sexual behaviour**

Societal factors have further been discussed at length by a number of researchers who have demonstrated that these factors are in fact fundamental in influencing people's decisions and actions towards sexual behavioural change, while other researchers have highlighted these factors as partial explanation for the failure of young people to change their behaviour. Those that have focussed on the same issue present the view that sexual cultural contexts have created gender segregated roles, and have not fostered sexual negotiation skills.<sup>11</sup> Further, ideologies of sexuality can vary from one region to another.<sup>12</sup> This means that human sexuality is culturally meaningful and is a sensitive domain and often there exists gaps between ideas of society, friends and partners, on the one hand, and practice of the individual, on the other. Examining socio-cultural factors using secondary data is rather difficult although important. It requires identifying those variables closer to culture or those that can identify or classify specific groups of people with a relatively similar lifestyle. Such variables

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<sup>10</sup> See C A Varga, 'South African young people's sexual dynamics: implications for sexual behavioural responses to HIV/AIDS', in *Resistance to behavioural change to reduce HIV/AIDS infection in predominantly heterosexual epidemics in third world countries*, eds. C.J. Caldwell, Pat Caldwell, John Anarfi, Kofi Awusabo-Asare, James Ntozi and I.O. Orubuloye, Australia: Health transition centre and National centre for epidemiological, 1999: 13-34.

<sup>11</sup> See Jeremiahs M. Twa-Twa, 'The role of the environment in the sexual activity of school students in Tororo and Palisa districts in Uganda', *Health Transition Review*, sup. 3 7 (1997): 67-81. Also See Charles Crothers, 'Factors affecting HIV/AIDS in South Africa: a framework and summary,' *Society in Transition* 32 1 (2001): 16. Also see note 9, Varga, 'Sexual decision-making and negotiation', 48-57.

<sup>12</sup> See note 1, Caldwell, 'Reasons for limited behavioural change' 241-56.



include language, area type, and region as some of the variables that circumscribe culture.

From the analysis, confirmation of the view that societal factors offer partial explanation for limited sexual behaviour change was obtained. The analysis showed that in Uganda and South Africa, number of sexual partners is associated with cultural influences. Using language as a proxy for socio-culture as a variable, it becomes clear that certain sections of the population tend to have more partners than others. In South Africa, the Nguni speakers were shown as more likely to have non-regular sexual partners compared to English/Afrikaans speakers. In Uganda, this was presented by findings from region of residence indicating that dwellers in the western, northern and eastern parts of Uganda were more likely to have multiple sexual relations than those in central Uganda.

What these findings show, seem to accord with discussions put forward by other researchers around cultural influences of sexual behaviour. However one has to understand cultural traditions at two levels, firstly, cultural traditions can, and, are used to provide positive guidelines towards sexual behaviour. For instance, sexual dynamics revealed among the Zulu people that regulated penetrative sex appear to have been derived from their cultural practices. Secondly, Kisseka and Ntonzi argue that sex with a number of partners among the Bantu speaking people, particularly among western people in Uganda, seems be high and is in some ways related to cultural traditions and practices, which permitted multiple sexual relations for young boys,<sup>13</sup> and in such situations, cultural traditions provided negative guidelines, from which if maintained today, would have serious negative consequences. Furthermore, some traditions discouraged open discussion between adults and adolescents regarding matters relating to sex, which of course today is a problem. With recent social transition and rapid urbanisation, which have transformed traditional values, those positive aspects have been eroded, and even though some negative aspects have begun to change with the emergence of HIV/AIDS, no clear cut guidelines have been provided to guide those young adults still trying to develop a world outlook and trying new roles to ascertain what suits best.

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<sup>13</sup> See James P.M Ntonzi, *High fertility in Uganda, the role of social economic and biological factors*, Kampala: Fountain Publishers, 1995: 107.

Further exploration into the importance of other factors showed that region of residence was significant. Based on the data and models, results showed that in Uganda, young females who resided in southwestern Uganda were more likely to use condoms than their counterparts in east and northern parts. However, and in relation to that, these young females were also found to have multiple non-regular sexual partners. The exploration of literature indicated that the use of condoms is common among non-regular sexual relations, and therefore it would stand to reason that that such a finding directly accords with existing literature and therefore, illustrates this relationship.

Findings in South Africa showed that young adults in KwaZulu Natal and to some extent Mpumalanga were more likely to adopt safer sex practices compared to their counterparts in Western Cape. There are other regions whose results were significant but since KwaZulu Natal and Mpumalanga were areas of focal interest due to the high levels of HIV prevalence in South Africa, one major inference can be drawn from the results. These results show the potential role of HIV/AIDS in influencing sexual behaviour. The more people in areas most affected begin to experience deaths and illness due to AIDS, the more they become aware of the problem and hence the need to avoid acquiring it by changing their sexual behaviour.

After control for a number of factors, age was found to be significant, and this finding was consistently observed throughout all models, indicating sexual behaviour change among teenagers between the ages of 15 to 19 in both countries. From the outset, the argument put forward regarding age indicated that people have different needs at different stages and these needs do impact on their sexual behaviour. This visible adoption of safer sex practices among teenagers is inexplicable. One can only speculate. Literature that has looked at similar aspects in Uganda and South Africa provide similar results. For instance, Caldwell argues that young people between the ages 15 to 19 in Uganda are constantly worried about HIV/AIDS and so tend to change their sexual behaviour.<sup>14</sup> Increase in condom use among teenagers in South Africa has also been noted. Research has shown that approximately 55% of these

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<sup>14</sup> See C.J. Caldwell, 'The Impact of the African AIDS Epidemic', *Health Transition Review*, sup. 27 (1997): 169-188.

young females report using condoms.<sup>15</sup> Filmer, studying the correlates of sexual behavioural change in developing countries, found that teenagers were more likely to adopt safer sex practices than those young adults in the later years.<sup>16</sup> Surprisingly, no reasons have been provided that explain why teenagers are more likely to change their sexual behaviour than young adults between the ages 20 to 24, an area for possible future research. One can only speculate that at early ages, experimentation is the goal and in most societies thoughts of starting a family among young women develop in their early 20s and so the need to ascertain stable relationships become important leading to stable relations characterised by infrequent use of condoms.

### **Differences in the two countries**

Reports of reduced HIV prevalence in Uganda as a result of sexual behavioural change has created the need for other countries facing similar disease epidemic problems to adopt some of the strategies that have been put in place in Uganda, to their respective countries. Yet, the social structural establishment of societies vary in many respects: - social, cultural, economic and political. Such variation, affect a number of processes operating in a particular society. Therefore, comparing societies in order to find common threads, which can be adopted in other societies with similar problems is subject, to a number of limitations, one of which can be found in their social structural makeup. Studying likely determinants of sexual behavioural change in Uganda and South Africa demonstrates clearly this view. A number of factors were found to be important in one country and not the other. These are highlighted below, the majority of which were socio-economic based.

Recently, sexual behaviour, economic status, and the intricate relationship between the two have received increasing attention.<sup>17</sup> It appears though that there are two levels of understanding to this view. The first suggests that as people's economic status improves, particularly among men, they are seen as more likely to engage in

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<sup>15</sup>See UNIDS/WHO, *A global overview of the epidemic*, [www.unaids.org/barcelona/presskit/bacelona](http://www.unaids.org/barcelona/presskit/bacelona), June 2002, Accessed in July 2002.

<sup>16</sup> See note 1, Filmer, 'The socio-economic correlates of sexual behaviour', 116.

<sup>17</sup> See Douglas Webb, *HIV and AIDS in Africa*, London: Pluto Press, 1997:131-132. Also See Abigail Harrison, Nonhlanla Xaba, Pinky Kunene, and Nelly Ntuli, 'Understanding young women's risk for HIV/AIDS: Adolescent sexuality and vulnerability in rural KwaZulu Natal', *Society in Transition* 31 1 (2001): 69-77. Also see note 1, Dladla, Qwana and Lurie, 'Speaking to rural women', 80. See note 12 Caldwell, 'Reasons for limited behavioural change' 1999:241-256. See note 3, Deheneffe, Careäl and Nombissi, 'Socio-economic determinants of sexual behaviour', 116. See note 17, Webb, *HIV and AIDS in Africa*, 133. See note 12, Caldwell, 'Reasons for limited behavioural change', 241-256.



multiple sexual relationships than those whose economic status is low. This is because economic status is linked with high level of income. This group, however, is also marked with increasing use of condoms. The second aspect suggests that, those in low economic status (mainly women) are more likely to engage in multiple non-regular sexual partners and these partners are regarded as economic coping mechanisms, and the choice of using a condom is often determined by the one with economic power.<sup>18</sup> However, these levels of understanding appear to be more complex than they appear, particularly when distinctions are made between the sexes. In other words, a woman earning her own income, irrespective of the woman's own status, is more likely to perceive the opportunities available to her, and also more likely to be assertive and insistent on using a condom. What seems to me to be the central issue is the economic power question and indeed the analysis confirms both positions. In the former position, results show that sexual behavioural change in terms of condom use becomes a viable option among those young females with some level of or higher income. In the latter position, those from poor and unfavourable backgrounds, with no prospects of changing their economic status are generally seen as less likely to adopt safer sex practices. Results in Uganda confirm this argument.

The role school environment plays in terms of sexual behavioural change has been ascertained. The inclusion of the in-school variable was based on the assumption that school-going females can readily get some information about HIV/AIDS, and are further aware of safer sex practices. This was under the assumption that the school environment would enable communication of sexually and HIV/AIDS related issues. In such circumstances, young females in school were assumed to be more likely to adopt safer sex practices as preventative measures than non-school-going females, or those who have never been to school. In addition, this hypothesis was based on the fact that education allows an individual to acquire more information through reading existing material as well as interacting with different people informed about HIV/AIDS. From the analysis, as presented above, results show that unlike young females in Uganda, in-school young females in South Africa were in fact more likely to change their sexual behaviour through use of condoms during sexual intercourse, or would have used a condom the last time they had sexual intercourse than out-of-school adolescents. This tallies with Filmer's findings where he notes that education

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<sup>18</sup> See note 17, Webb, *HIV and AIDS in Africa*, 131.

was linked to sexual relations with non-regular partners.<sup>19</sup> However, even though that was the case, the general observations were that more use of condom was noticed in these relationships. One would say that such behaviour is of course linked to the ability of understanding serious issues that may affect one's health when they are exposed to some level of education.

Besides HIV/AIDS related knowledge obtained from school, general knowledge of HIV/AIDS was examined. In both countries but more so in South Africa, this appeared to be statistically significant indicating that young females who had knowledge regarding HIV and AIDS, were on average more likely to change their sexual behaviour. The importance of knowledge of HIV/AIDS as a factor determining sexual behaviour is not clear-cut and has become regarded by many as having no significant impact on behaviour. Gordon and Klouda have argued that knowledge of HIV/AIDS does not translate into behaviour change.<sup>20</sup> This questions a number of awareness programmes that strive to achieve such an aim. However, it is also true that societies are different and the way people perceive such knowledge varies from society to society. For example, authors that have studied gay communities give hope that knowledge does have an impact but needs time for positive results to be observed.<sup>21</sup>

Further variation in the adoption of safe sex practices emerged in the different age groups in Uganda and South Africa. Data in Uganda and South Africa illustrate the fact that teenagers respond more favourably to use of condom than those between the ages 20 to 24, but were also more likely to have non-regular sexual partners. Observed throughout the analysis, this observation tallies with available research on the same issue.<sup>22</sup> In the midst of all this, there is a need for further research to navigate and explore the reasons for sexual behavioural change noted mostly among teenagers. This has not been explored. In this study, such visible differences are thought to result from the different needs people require at different stages in life.

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<sup>19</sup> See note 1, Filmer, 'The socio-economic correlates of sexual behaviour', 111-129.

<sup>20</sup> See Gordon and Klouda, *Preventing a Crisis: AIDS and Family Planning Work*. England: International Planned Parenthood Federation, Jason Press, 1988: 19. Also see note 9, Varga, 'South African young people's sexual dynamics', 13-34.

<sup>21</sup> See Adam Carr, *Behaviour change in response to the HIV epidemic: some analogies and lessons from the experience of the gay communities, HIV and development programme*, issues paper No. 7, United Nations Development Programme (UNDP), <http://www.undp.org/hiv/publications/issues/english/issue07e.htm>, July 1991: Accessed June 2002.

<sup>22</sup> See note 1, Filmer, 'The socio-economic correlates of sexual behaviour', 111-129.

### **The strength of self-perceived risk of HIV/AIDS in determining one's sexual behaviour**

The analysis above illustrates the significant importance of self-perceived risk of HIV/AIDS and its strength in determining individual sexual behaviour. What it demonstrates is that because HIV/AIDS has begun to feature more prominently, and has reached a stage of high public visibility, and its consequences felt countrywide in Uganda and South Africa, young adults' perceived risk of HIV infection ultimately increases, forcing them to re-think their sexual behaviour and to question social cultural attributes that put them at risk. This was noted with the examination of region of residence. One of the striking observations noted was the change in the odds ratios of region of residence when self-perceived risk of HIV/AIDS variables were forced into the model. Specific attention is drawn to the results presenting use of condoms among those residing in KwaZulu Natal as a region where the prevalence of HIV/AIDS is recorded as probably the highest in the country. The addition of risk perception variables changed the values from being insignificant to significant and moreover, showing that young females in this province were more likely to have used condoms compared to those in the Western Cape. One aspect this can be related to is what has been discussed earlier, and suggests that it is likely that people will begin to re-think their sexual behaviour once they have first hand experience of the problem.

### **Relationship between self-perceived risk of HIV/AIDS and social factors in determining one's sexual behaviour**

One of the issues deserving of attention yet difficult to clearly ascertain is the relationship between perceived risk of HIV infection and other social factors. During the initial conception of this work, it was assumed that there was a link between perceived risk and social factors. The only visible relationship noted occurs when individual variables (self-perceived risk of HIV/AIDS) are included in the model containing social cultural variables. Through an examination of the differences in coefficients between models 2 and 2A, the coefficients for all the individual variables either change level of significance or have their effects attenuated when socio-cultural factors in particular, region, was controlled for, which when interpreted at face value shows that in comparison to individual factors, socio-cultural factors are stronger determinants of sexual behavioural change. But when one considers the actual aim as



to why region was added, deductions drawn then change, showing that those who lived in areas highly infected with the disease epidemic and whose perceptions of HIV/AIDS were high, were more likely to adopt safer sex practices regardless of how strong their cultural traditions encouraged sexual behaviours that would put them at risk. Varga,<sup>23</sup> and Caldwell,<sup>24</sup> present similar findings among young adults in South Africa and Uganda respectively, showing the role HIV/AIDS plays in changing young adults perceptions about contextual factors, in order to prevent acquiring the infection.

## CONCLUSION

A number of objectives have been set but I want to look at two major ones. Firstly, looking back from the above analysis and discussion, it becomes relatively clear to acknowledge the relative importance of self-perceived risk of HIV/AIDS as one of the important factors predisposing individual sexual behavioural change. Results have on the whole shown that individuals' decisions regarding number of partners and condom use today are largely influenced by self-perceived risk of HIV/AIDS.<sup>25</sup> Secondly other factors are also important and should not be ignored. These were mainly factors such as age, economic conditions and knowledge. In broad terms, the adoption of a comparative analysis and in particular selecting South Africa and Uganda to understand the correlates of sexual behavioural change as a measure for preventing the spread of HIV infection has been an eye opener, particularly to some of the aspects likely to shape the future of the two countries and the role HIV prevalence levels play. While it was clear in Uganda that low levels of risk perception is associated with low levels of sexual behavioural change, this relationship is noted in South Africa, although it does not hold firm ground. This is perhaps related to low risk perceptions of HIV as noted in earlier chapters. It is hoped that as the level of self-perceived risk of HIV/AIDS increases among young adults, there will be a noted increase in sexual behaviour change.

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<sup>23</sup> See note 9, Varga, 'South African young people's sexual dynamics', 13-34.

<sup>24</sup> See note 14, Caldwell, 'The Impact of the African AIDS Epidemic', 169-188.

<sup>25</sup> See D.W. FitzSimons, 'The global pandemic of AIDS', in *Facing up to AIDS: The socio-economic impact in Southern Africa*, eds. Sholto Cross and Alan Whiteside, London: Macmillan Press, 1993:13-33. Declan Walsh, *AIDS in Uganda: Careful talk can save lives*, <http://news.independent.co.uk/uk/uk/health/story.jsp?story=80057>, July 2001: Accessed September 2001.

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## CHAPTER EIGHT

### SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

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The focus of this work was to examine sexual behavioural change and the likely predisposing factors in the era of HIV/AIDS among young adults between the ages of 15 to 24, in Uganda and South Africa. It pursued a path towards exploring the potential role of young adults' self-perceived risk of HIV infection in sexual behavioural decisions regarding adoption of safe sex practices, in particular '*use of condoms*' and '*limiting number of sexual partners*'. This work further recognised that Uganda and South Africa are countries with social, cultural, economic, and political contexts, which contexts have been described by many as inextricably linked with sexual behaviour, and which often determine the choices young female adults make regarding sexual activity. These factors were, therefore, examined as a basis for evaluating the significant importance of self-perceived risk of HIV/AIDS.

The formulation of this study, which placed emphasis on examining the potential role of self-perceived risk of HIV/AIDS as a predisposing factor for sexual behavioural change, and in Uganda and South Africa was based on a number of aspects as highlighted below:

- a) That both Uganda and South Africa at one point or another were and/or are faced with high prevalence levels of HIV/AIDS;
- b) That both have and/or are yet to be faced with high mortality, which is HIV/AIDS related and such profound consequences will/or have had inadvertent effects on individual, both socially and economically. In some respects, this has also affected individual perceptions regarding HIV infection;
- c) Recognition that the progression of HIV/AIDS in Uganda was much faster than in South Africa, and this meant higher prevalence, higher mortality rates, which then triggered both government and non-governmental response towards preventing further spread. Since these factors are beginning to emerge in South Africa, one therefore asks the question as to whether the pandemic will take similar trends

as those reported in Uganda. This would also enable the identification of similarities and differences in the likely determinants of sexual behaviour considering these countries have different backgrounds;

- d) In both countries, education programmes have been rigorous and that the level of awareness is at a point that would enable sexual behavioural change to occur;
- e) Related to C above, a recognition that in Uganda, as shown in a number of reports and existing literature, the prevalence of HIV has declined and for this reason, it has become imperative to try and examine the likely factors leading to reduced HIV/AIDS prevalence, and to compare with what is happening in South Africa. This would enable the examination of any possible lessons that could be learnt in the reduction of the prevalence in South Africa.

In order to achieve the set goals, a rigorous analysis and examination of self-perceived risk of HIV/AIDS in relation to societal factors was done to determine which variables of the two categories best explains sexual behaviour. Two sets of Demographic Health Surveys (DHS) data, were employed, the South Africa Demographic Health Survey of 1998 (SADHS) and the Ugandan Demographic Health Survey (UDHS) of 2000/1. All young female adults between the ages 15 to 24 were selected from both data sets. 3,229 and 4,559 young females adults were selected in Uganda and South Africa respectively leading to a total sample size of 7,688. Because of the nature of the dependent variable, logistic regression analysis was conducted to determine what variables were likely determinants of sexual behaviour after control for a number of other variables likely to impact on an individual's sexual behaviour.

#### **SUMMARY OF FINDINGS**

The first major issue to highlight and as marked from the analysis was that studying sexual behavioural related aspects is subject to a number of limitations, firstly, that it is difficult for people to freely talk, and discuss their sexual life as well as sexual behaviour. And therefore, it ought to be mentioned that the results as well as the conclusions obtained, are subject to this practical consideration. Furthermore, understanding sexual behavioural aspects requires one to deconstruct people's



cultures at greater depth which secondary data does not particularly offer. Therefore, the conclusions obtained from this study are better off, if a follow up is done using interactive research so that the various questions posed are answered.

The analysis was done in two chapters as a basis for capturing at greater depth issues as put forward in the objectives of this study. The dependent variable to recap was sexual behavioural change based on the adoption of safer sex practices namely; *'whether the respondent used condoms'* and secondly *'whether a respondent had non-regular sexual partners'*. Chapter five focused on the analysis and discussion of this behaviour condom use examining the effect of self-perceived risk of HIV/AIDS on this behaviour use in relation to other factors in Uganda and South Africa, as well as the effect of other societal factors. Chapter six follows, analysing number of sexual partners and as in chapter five, examines what factors influence multiple partner relationships. Logistic regression analysis was conducted since the variable was dichotomous in nature, and several logistic regression models carried out.

The analysis showed that self-perceived risk of HIV/AIDS is a significant factor influencing sexual behavioural change. While almost all the variables measuring self-perceived risk of HIV/AIDS were significant in Uganda, variation in terms of which of these factors were important in South Africa was noted indicating that the potential role of self-perceived risk of HIV/AIDS was more pronounced among those who new that the *'a health person can have AIDS'*.

Other societal factors both socio-cultural and economic were found to be significant in affecting sexual behavioural decisions among young adults. However, variations also emerge in terms of what actual factors are significant in the two countries. It appeared that school environment impacts on one's sexual behaviour. This was remarkably pronounced in South Africa alone. Analysis of individual's economic conditions presented varying results for both Uganda and South Africa, showing that those who live in poor economic conditions were more likely to engage in multiple sexual relations in South Africa, while indications are that those engaged in income generating activities appeared to be significant in Uganda, indicating multiple relations as common among this group.

Finally the importance of self-perceived risk of HIV/AIDS was re-emphasised and noted through examination of the results of region of residence showing that areas

that were highly infected with the epidemic were more likely to change their sexual behaviour despite circumscribing circumstances. This was noted in southwestern Uganda and in KwaZulu Natal in South Africa

### **CONCLUSIONS DRAWN**

The major conclusion to which this analysis has put forward in terms of evidence adduced with regard to determinants of sexual behavioural change for this study is that sexual behavioural change is more likely to be predisposed to a large extent by self-perceived risk of HIV/AIDS, to a large extent by age group, to some extent by socio-cultural as well as socio-economic factors. What seems to be important, however, is the strength of self-perceived risk of HIV/AIDS as a factor predisposing sexual behavioural change. Specifically, 'Knowing some one who has or died of AIDS' as one of the major factors measuring self-perceived risk of HIV/AIDS showed positive and significant results. It has consistently remained significant in a number of models and although the level of significance attenuate in South Africa, its potential role has been ascertained based on several models in which it was significant. Therefore, from the results above, the set hypothesis, which focussed on the importance of risk-perceptions of HIV infection, has been proved.

Among the objectives set, a question was posed as to whether there are notable differences affecting behaviour in the two countries. The aim was to examine whether there are country or regional specific variables that influence sexual behavioural change and therefore examine whether organisations or countries can actually devise or adopt similar preventive measures. A number of factors as described in the summary of findings above presented differences in terms of what affects sexual behaviour in one country as opposed to the other. It would, however, appear that the highlighted differences below are just what we see on the surface but can be deeply engrossed in peoples' perceptions and what factors has helped shape their behaviour over years.

Finally, one of the objectives was aimed at examining whether there can be any lessons learnt from Uganda. It is very difficult to draw such a conclusion, but what has become clear is the influence HIV/AIDS itself has on society and on sexual behaviour through increased self-perceived risk of HIV/AIDS. Since the results suggest the importance of self-perceived risk of HIV/AIDS as highly pronounced in Uganda, and considering the level of HIV/AIDS in the two countries, it would appear

that South Africa should institute programmes to increase self-perceived risk of HIV/AIDS for the purposes of preventing further spread.

There is also a likelihood that since the prevalence of HIV and of AIDS is high in South Africa and Uganda respectively, the consequences of AIDS (mortality/morbidity, education programmes) which have affected Uganda and appear to have led to increased self-perceived risk of HIV/AIDS will lead to similar consequences in South Africa. It would, therefore be of value for South Africa to devise intensive relevant anti-AIDS education programmes, that would enable people not only to know that AIDS exists, but are further made aware of the grave risks it poses to the entire society. What would seem to be fundamental, and at the epicentre of the success of these programmes in changing behaviour, would be the emphasis placed on the effect of experiences of deaths and illnesses due to AIDS. This is likely to shape the sexual behaviour of young minds.

## RECOMMENDATIONS

- ***Re-considering the potential role of self-perceived risk of HIV/AIDS:*** From the study, it became apparent that there has been complete neglect of self-perceived risk of HIV/AIDS partly due to the positions taken, and, as presented in literature that in some societies particularly those in Africa, individuals are not in a position to make responsible choices due to circumstances surrounding their lives. This is partly true, however, the analysis showed that this has begun to change especially because of prevalence of HIV/AIDS and its adverse effects. This study therefore recommends that for any sexual behavioural change programme aimed at preventing the spread of HIV/AIDS, increasing young adults' self-perceived risk of HIV/AIDS should be highly re-considered. This can be done through designing those programmes within which one actually recognises the level of risk they are exposed to. (See annexure 1, proposed education programme for increasing one's self-perceived risk of HIV/AIDS)
- ***Importance of awareness programmes:*** In relation to that, because this study has not been able to have consistent results showing knowledge and awareness as a fundamental factor likely to influence sexual behavioural change, it does not rule out it's latent importance especially since awareness in one way or another is directly linked to self-perceived risk of HIV/AIDS, as factor that



labels the problem. Therefore, governments and organisations should continue to educate the young with special reference to those between the ages of 20 to 24. This is based on the analysis results, which showed that this group was less likely to adopt safer sex practices. This, however, does not mean that they should neglect the other age groups of the population.

- ***Re-evaluating the emphasis on societal variables:*** This study considers that an individual and society are inseparable and therefore focusing on one aspect is limiting. There is need to consider the intricate link of the two and the manner in which these affect an individual's behaviour, therefore, if one is to fully devise appropriate programmes, such aspects need not be neglected.
- ***Re-examining disseminated information according to target audience:*** Again this study strongly recommends that the disseminated information should be synonymous with the target audience. This again reflects the fact that different people have different needs and this may affect the way they accept the message disseminated and ultimately affecting their willingness to adopt safer sex practices or adopting sexual behavioural change measures to prevent the spread of the infection.
- ***Future research:*** Finally, from the examination of literature and analysis of data, I recommend that future research explore further, the link between the influence on sexual behaviour and self-perceived risk of HIV/AIDS. One such study could explore for instance the link between socio-cultural or socio-economic factors and self-perceived risk of HIV/AIDS and how the two affects one's behaviour in this era of HIV/AIDS. This study found that there is actually a link, but due to data limitations, particularly those that include the type of available variables that do not clearly explain certain aspects appropriately and where proxy variables were employed. Therefore, this needs further exploration. Future research should also focus on understanding why young adults between the ages of 15 to 19 adopt safer sex practices than those in ages 20 to 24.

## ANNEXURE 1

### DRAFT RISK REDUCTION PROGRAMME: THREE STEPS TO LIFE

#### A multiple education programme for increasing self-perceived risk of HIV/AIDS to prevent further spread of HIV infection

**Target group:** This programme is primarily meant for adolescents. It best suits those young adults, both female and male still in school for two major reasons:

- That these young adults fall under a particular structure that is suitable for disseminating information;
- That these young adults can easily be collectively organised for intense monitoring of the working of the programme.

**Aim:** To change sexual behaviour by adopting safer sex practices as a preventative measure for HIV/AIDS. Particularly, it focuses on increasing young adults' self-perceived risk of HIV/AIDS as a factor found to be significant in changing behaviour in the face of HIV/AIDS.

**Length of Time:** For monitoring purposes, this programme should be executed for a period of 6months-1year, to allow the completion of the three stages. For this to occur, a body or organisation has to be in place to monitor appropriately its progress.

### INTRODUCTION AND THINKING STAGE

**1.1: Identification:** It is of utmost importance that no assumptions are made regarding what is known and what is not known about the problem. Therefore, introduction of the problem is needed. In a school environment, introduction of the problem is necessary once a specific group of adolescents is identified. Introduction can be done by a teacher or by an outsider. At this stage, adolescents must be given a chance to highlight what they know, their knowledge, thoughts and fears about the problem. The organisation in charge should take this information and process it. This is aimed to develop knowledge with the young rather than thinking for the young. This also enables one to highlight the gaps between existing knowledge, about what is on the known by the group, and should be disseminated;

**1.2 Feedback:** A feedback is provided to the adolescents, and at this stage, information relating to safe sex should be disseminated. Issues relating to condom

use, how to use condoms, where to obtain condoms, and further, issues relating to number of partners, faithfulness should be highlighted, in relation to the information put forward by young adults;

**1.3: *Acknowledging*:** Further, misconceptions, myths, and stigma should be clearly dealt with. In order to keep abreast with previous discussions, posters relating to the discussions should be put on common notice boards, that will enable them to see and view what is happening on the ground. To enable them to stop stereotyping about those that are for example are '*slim looking*', have TB or other illnesses. More information about prevention and spread should also be included on common notice boards. This allows them to be able to remind themselves of the ways of getting and preventing HIV infection and know what they can do and what they cannot do;

**1.4: *Conclusion*:** The most fundamental aspect for this stage and what should be done is allowing the young adolescents to be engaged in the thinking process. This is the starting point for it highlights for the programme initiators, what is at stake and what is not, what is known and what is not known.

## PROCESSING STAGE

In this stage, we will assume that most of the misconceptions have been clearly illustrated upon and explained, and that the young adults to a large extent have extensive knowledge regarding the problem. We then take them a step further by introducing the effects of the disease on society. Again, this can be done in stages

**2.1: *Introduction*:** At this stage, introduce some drama shows, or films that are done through acting. Here, the young should be told that what they are seeing is acted but is based on real life stories. This is aimed to test how the young are ready to cope with the truth;

**2.2: *In depth*:** From this stage, provide real documentaries on AIDS. What is appropriate at this stage, are documentaries of people that know they have AIDS, filmed in the early stages of the illness, showing how the disease eventually progresses. This enables the young adults to know that even those who are healthy can actually develop AIDS. Further and perhaps important is to get those documentaries of people they know, well known persons such as musicians, actors, role models that have the same problem but of course willing to be involved in the programme particularly in the filming process;



**2.3: *Evaluation*:** At this point, or as part of the feedback, design an assignment in form of a test that is exclusively HIV/AIDS related. This can contribute to the total school mark, as part of their motivation to encourage them to read more about the problem and ultimately gaining more knowledge.

### **PARTICIPATION STAGE**

**3.1:** Talks should be emphasised here, where by talks are provided by people living with AIDS. This moves them from drama concerts to reality. They can actually see and touch this person. Information to disseminate here should be in line with the two steps already covered;

**3.2:** In the final stages, participants should now be able to participate in interschool play competitions, which are again HIV/AIDS related, where by rewards are provided for the best performance to encourage further participation. One should realise that they may lack enthusiasm due to hearing the same thing over and over again, so to keep them motivated, rewards should be awarded;

**3.3:** Evaluation: Final evaluation should be done to examine the level of self-perceived risk of HIV/AIDS.

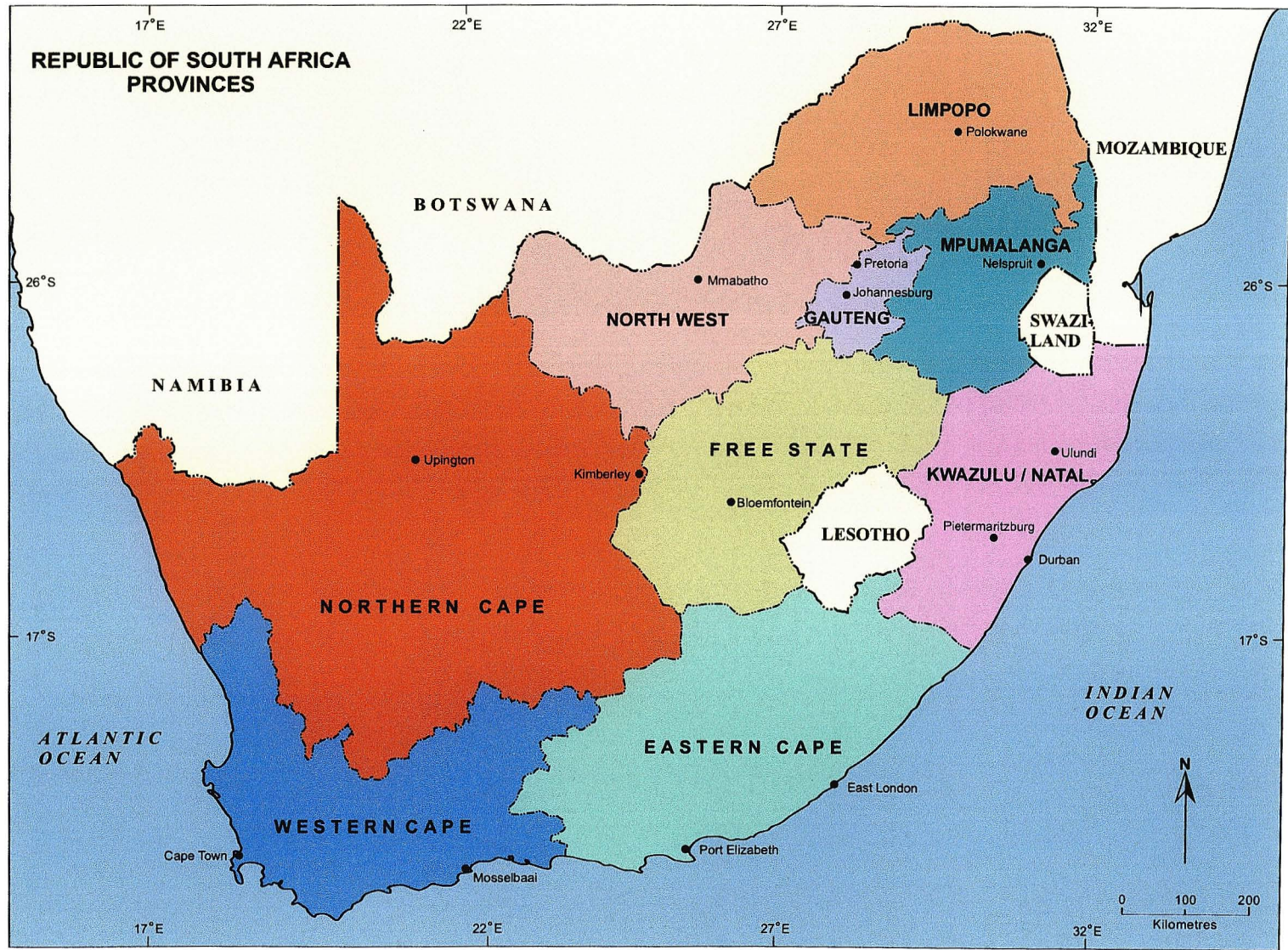
**Annexure 2: MAP OF UGANDA SHOWING ITS LOCATION AND SOME OF THE AREAS REFERED TO IN THE DISCUSSION**



Map of Uganda



**Annexure 2A: MAP OF SOUTH AFRICA SHOWING ITS LOCATION AND SOME OF THE AREAS REFERRED TO IN THE DISCUSSION**





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**ANNEXURE 2: THE PROGRESSION OF HIV/AIDS IN UGANDA AND SOUTH AFRICA:  
SOME IMPORTANT REFERENCE INFORMATION**

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**Uganda**

1981 First AIDS case identified in USA.

1982 First AIDS cases identified in Uganda.

1988 A National Sero-survey conducted to assess the magnitude of the epidemic among the adult population. The average prevalence rate was at 9%.

1992 Peak of infections in hard hit areas with some urban sites registering a prevalence rate of over 30%.

1995 Uganda announces confirmed declining HIV prevalence trends beginning 1992.

2000 The average national prevalence rates among the adult population noted to have declined from around 18.5% in 1995, to 14.7% in 1997, 9.5% in 1998 to 8.3% at the end of 1999.

2001 - An estimated cumulative total of 2.2 m people have been infected with HIV since its onset in the country. - About 800,000 people are estimated to have died of AIDS since the onset. - 1.4m people are currently estimated to be living with HIV/AIDS. - Over 1.7 million children have been orphaned by AIDS.

**Plans actions and policies**

2000 Recognizing the impact of HIV/AIDS on development, the Government Embarked on the process of mainstreaming HIV/ AIDS issues in the country's Poverty Eradication Action Plan while targeting integration in the government sector budgeting exercise.

2000 The UNAIDS Executive Director, Dr Peter Piot pays a visit to Uganda in recognition of the excellent work undertaken by the country in response to HIV/AIDS.

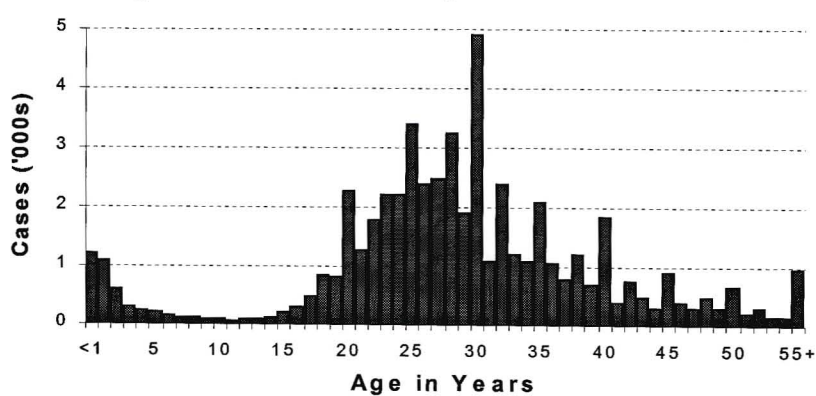
2001 Accomplishment of the preparation of the Uganda AIDS Control Project prepared under the aegis of Multi-country AIDS Project (MAP) of the World Bank. A \$50m loan has been secured to support HIV/AIDS activities in all sectors at national, district and community levels. Uganda's efforts against HIV/AIDS have been financially and materially supported by the government and several development partners. These include: the UNAIDS Secretariat and its cosponsors particularly UNDP, WHO, UNICEF, World Bank, UNFPA; USAID, European Union, DFID, DANIDA, SIDA, the Italian, Germany, French and Japanese Governments among others. Various international and local NGOs have also funded and implemented several programmes and activities.

## Uganda

### Cumulative reported AIDS cases by year

Year	Number of cases	Cumulative cases
1983	17	17
1984	11	28
1985/86	882	910
1987	2,914	3,824
1988	3,425	7,249
1989	6,090	13,339
1990	6,616	19,955
1991	10,235	30,190
1992	6,362	36,552
1993	4,641	41,193
1994	4,927	46,120
1995	2,191	48,312
1996	3,032	51,344
1997	1,962	53,306
1998	1,406	54,712
1999	1,149	55,861
2000	2,303	58,165

### Age Distribution of Ugandan AIDS cases



Source: <http://www.aidsuganda.org>

## South Africa

### AIDS STATISTICS IN SOUTH AFRICA – AUGUST 2000

- 22,4% of all pregnant women who visited ante-natal clinics in South Africa during 1999 were HIV+.
- 200 HIV+ babies are born every day in South Africa.
- 32,8% of KZN's pregnant women were HIV+ during 1999.
- At the University of Durban-Westville, 25% of the students tested positive for HIV
- At present 4,2 million (10%) of South Africans are HIV+ (the total population is 42 million). This is the highest infection rate in the world, outstripping even India with a population 20 times larger. Estimated to rise to 6 million in 2005.
- In KZN the death rate (due to AIDS) is now higher than the birth rate.
- UNAIDS, however, estimate this rate to be between 20% and 25%. They estimate that only 5% HIV+ people worldwide are aware of their status
- In KZN there is currently approximately 120 000 AIDS orphans. This figure is expected to rise to 750 000 in 10 years from now.
- SA has more than 100 000 HIV+ children and it is reported that 1 out of every 7 children will be an HIV/AIDS orphan by 2005.
- In the KZN Midlands, 75% of hospital beds are occupied by children with AIDS-related diseases, while 50% of childhood deaths in that area were AIDS-related.
- About 300 people with AIDS are being admitted daily to SA hospitals, filling 40% of general ward beds in some hospitals.
- By 2006 the number of AIDS deaths will equal the number of people dying of all other causes.
- According to Medicines Sans Frontiers (MSF) 60 000 HIV infected babies will be born in South Africa this year.
- HIV prevalence is highest among women aged 20 – 30.
- 550 000 new HIV infections per year in South Africa (1700 per day).

Source, World AIDS Statistics: <http://www.avert.org/worldstats.htm>



South Africa projections for the disease epidemic				
Year	Total population	Total HIV+	Cumulative AIDS deaths	Total aids sick
1990	35 783 975	48 818	242	394
1991	36 513 522	106 732	648	974
1992	37 422 066	218 197	1 606	2 258
1993	38 375 873	412 674	3 725	4 922
1994	39 375 664	727 452	8 139	10 085
1995	40 410 256	1 203 847	16 817	19 519
1996	41 452 486	1 864 140	32 954	35 714
1997	42 489 541	2 684 545	61 410	61 996
1998	43 439 051	3 578 195	109 043	102 097
1999	44 298 552	4 457 033	184 624	159 180
2000	45 078 805	5 263 841	298 645	236 228
2001	45 768 984	5 968 521	462 642	334 253
2002	46 361 337	6 558 628	688 428	453 352
2003	46 848 269	7 027 931	987 061	591 088
2004	47 223 831	7 373 071	1 367 429	742 519
2005	47 485 369	7 594 403	1 834 484	899 071
2006	47 635 680	7 697 600	2 387 587	1 049 742
2007	47 683 822	7 695 201	3 019 659	1 182 710
2008	47 645 665	7 605 111	3 717 519	1 287 844
2009	47 540 955	7 449 678	4 463 489	1 358 743
2010	47 392 059	7 252 801	5 237 867	1 393 926
Source: R.E. Dorrington, D. Bradshaw and D. Budlender, <i>HIV/AIDS profile of the provinces of South Africa –indicators for 2002</i> . South Africa: Centre for Actuarial Research, Medical Research Council and the Actuarial Society of South Africa. 2002: 28.				

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